



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

DEC 02 2009

HWP/ENF MOR 000501924

MISSOURI TIE + TIMBER

REYNOLD

Mr. Junior Flowers  
Full Owner  
Scott Tie Company Inc.  
And Missouri Tie and Timber  
Highway 72 West  
Reynolds, Missouri 63666

Dear Mr. Flowers:

On September 15, 2009, representatives of the U.S. Environmental Protection Agency (EPA) inspected your facility. The inspection was conducted under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA). A copy of the inspection report is enclosed for your information.

EPA is presently reviewing the findings of the report to determine your facility's compliance with the applicable statutes, permits, or regulations. If it is determined that violations exist, EPA reserves all rights it may have to take appropriate enforcement action, regardless if any violations were subsequently corrected.

If there are any questions regarding this report or actions that you may want to take, please contact me at (913) 551-7887.

Sincerely,

Jim Aycock  
Compliance Officer  
RCRA, Enforcement and State Programs Branch

Enclosure

cc: Mr. Dennis Hansen  
Missouri Department  
of Natural Resources  
MDNR Regional Office

RECEIVED

DEC 03 2009

Hazardous Waste Program  
MO Dept. of Natural Resources



**REPORT OF RCRA COMPLIANCE SAMPLING INSPECTION**

**AT**

**SCOTT TIE COMPANY, INCORPORATED**

Highway 49

Vulcan, MO 63675

EPA ID Number: Non-Notifier

and

**MISSOURI TIE & TIMBER**

Highway 72 West

Reynolds, MO 63666

(573) 689 - 2040

EPA ID Number: MOR000501924

**ON**

September 15, 2009

**BY**

**U.S. ENVIRONMENTAL PROTECTION AGENCY**

Region VII

Environmental Services Division

**1.0 Introduction**

At the request of the Air and Waste Management Division (AWMD), I performed a focused Resource Conservation and Recovery Act (RCRA) compliance sampling inspection at Scott Tie Company, Inc. in Vulcan, MO and at Missouri Tie & Timber in Reynolds, MO on 9/15/09. Both facilities have the same owner and are related. The purpose of the focused inspections was to collect samples at the same locations as the 3/25/04 sampling inspections. The analytical data from both facilities will be used to determine if levels of contamination have diminished at the Scott Tie Company, Inc. facility. I conducted the inspections under the authority of RCRA Section 3007(a), as amended. This report and attachments present the results of both inspections.

**2.0 Participants**

Scott Tie Co., Inc. (Scott Tie) and Missouri Tie & Timber:  
Junior Flowers, Full Owner

U.S. Environmental Protection Agency (EPA):  
Dedriel L. Newsome, Environmental Engineer (Lead Inspector)  
Jim Aycock, EPA RCRA Compliance Officer

### 3.0 Inspection Procedures

Upon arrival at the Missouri Tie & Timber facility at about 8:30 A.M., Mr. Aycock and I met Mr. Flowers. I explained the purpose and procedures of the inspections and presented Mr. Flowers with my EPA credentials. He was made aware of their confidentiality rights and informed that a Confidentiality Notice would be provided at the end of the inspections to make any claims. Mr. Flowers was provided with a copy of US Federal Code 1001 and 1002 concerning false statements and documents to read. I reviewed the previous 3/25/04 inspection reports with Mr. Flowers and asked him about changes at both facilities since then. I did not review all waste streams in detail since both inspections were focused sampling inspections. Mr. Aycock and I then collected a sample and duplicate of the wood preservative solution (samples #4544-1 and #4544-1FD) at Missouri Tie & Timber.

Mr. Flowers, Mr. Aycock, and I then drove to the Scott Tie facility in Reynolds, MO. We conducted a visual inspection of the previous 3/25/04 sampling locations. Mr. Aycock and I collected soil samples from the same previous soil sampling locations, plus two additional soil samples of fresh wood preservative drippage (samples #4545-1 through #4545-6). The previous water samples were not repeated since there was insufficient water accumulated on-site.

I collected photographs with a digital camera. They are included as photos 1 through 22 and are listed in the photo log. The Entry/Exit checklist completed for both inspections is included as attachment 1.

At the conclusion of the inspection, I summarized the findings and recommendations with Mr. Flowers. I did not again provide Mr. Flowers with compliance assistance documents since they were provided during the previous inspections. I provided Mr. Flowers with a Confidentiality Notice and a Receipt for Documents and Samples which he signed as acknowledgment of receipt (see attachments 2 and 3). *No confidential business claims were made during the inspection.*

### 4.0 Findings and Observations

#### 4.1. RCRA Status / Facility Operations

The wood preserving regulations became effective on 12/6/90, and established the F034 listing which consists of wastewaters, process residuals, preservative drippage, and spent formulations from plants that use creosote formulations. However, this F034 listing was a non-HSWA provision, and therefore, not applicable in Missouri as the state has not adopted this listing. Therefore, waste meeting this listing description would be a hazardous waste only if it is characteristic.

In general, railroad ties are treated at the Missouri Tie & Timber facility using creosote. They are then transported to Scott Tie, a storage area and rail spur, to be shipped to the customer. The previous 3/25/04 RCRA inspection report for Scott Tie and the previous 3/7/01 and 3/25/04 RCRA inspection reports for Missouri Tie & Timber should be reviewed for a detailed facility

process and waste stream description. A summary of the 3/7/01 and 3/25/04 inspections is as follows:

- The 3/7/01 Missouri Tie & Timber inspection involved sampling the wood preservative waste (a combined waste stream of process drippage, process residues, filter residue, and tank bottoms). The waste was analyzed for TCLP semi-volatiles, polycyclic aromatic hydrocarbons (PAHs), and TCLP metals. The wood treating waste did not exceed the TCLP regulatory limits, although it did contain high levels of PAHs that are also listed in 40 CFR Part 261 Appendix VIII. One of the criteria EPA uses to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The constituents on the list have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. Missouri Tie & Timber continues to manifest their creosote process waste as an F034 hazardous waste (see attachment 4). The waste shipped may also be hazardous if it contains any unused creosote, U051. According to the listing, U051 consists of discarded commercial chemical creosote products or off-specification commercial chemical creosote products. Mr. Flowers stated that they do not generate any unused creosote.
- The 3/25/04 inspections at both facilities involved a complaint investigation regarding creosote wood preservative releases on the roads between Missouri Tie & Timber and Scott Tie and at the Scott Tie facility. The inspections included collecting soil and water samples at Scott Tie and analyzing them for total semi-volatiles, including PAHs. It also included collecting a wood preservative waste sample from Missouri Tie & Timber that was analyzed for total semi-volatiles, including PAHs. The Scott Tie soil sample results were compared to a soil background sample and to the Missouri Tie & Timber wood preservative waste sample to determine if wood preservative releases had occurred. Based on the sampling results, it was determined that creosote releases had occurred.

The focus of this 9/15/09 sampling inspection was to collect samples at the same locations as the 3/25/04 inspections. Based on the levels of contamination in the soil samples previously collected at Scott Tie (i.e., if they have diminished considerably in this current sampling) and if the contaminant levels are now below health-based levels, then EPA can determine whether further action is required.

Missouri Tie & Timber submitted a Notification of Hazardous Waste Activity on 11/13/01. They notified as a small quantity generator (SQG) of F034 hazardous waste. Scott Tie has not submitted a Notification of Hazardous Waste Activity. For the EPA and MDNR RCRA databases, I updated Scott Tie's EPA RCRA Handler Information Report and Missouri Notification and Waste Stream Information sheet which are included as attachments 5 and 6. This RCRA database information was not updated for Missouri Tie & Timber, since it was a focused inspection and I did not review all their waste streams or visually inspect that facility.

## 4.2. Changes Since the Previous Inspections

I asked Mr. Flowers if they have had any process or chemical changes since the previous RCRA inspections. He noted the following changes, clarifications, and/or additional information:

### Missouri Tie & Timber

- The name of the saw mill on-site is Reynolds Wood Products. Missouri Tie owns the green products (untreated wood) stored on-site. Missouri Tie & Timber owns the wood treatment facility on-site.
- There are seven full-time employees in addition to two managers.
- The Missouri Tie & Timber facility is about 40 acres total.
- As of about four to five months ago, Missouri Tie & Timber now uses a 50-50 creosote preservative blend for wood treatment. They purchase P1 Creosote Oil and Heavy Fuel Oil in bulk (see attachments 7 and 8 for MSDS). They then blend the two chemicals in a 50-50 blend (5000 gallons each) on-site.
- The creosote wood preservative waste is being manifested as F034 waste to Clean Harbors in Eldorado, AR (see attachment 4 for latest manifests).

### Scott Tie

- The Scott Tie site is about 12 to 12.5 acres.
- The oldest treated ties on-site are about three to four months old.
- Since the previous inspection, there is less treated wood being stored on-site due to the railroad no longer having a large backlog.
- Missouri Tie & Timber last shipped treated wood to Scott Tie the day of the inspection, 9/15/09.
- Scott Tie currently has about 38,707 creosote treated railroad ties on-site.
- Missouri Tie & Timber ships up to six loads of treated wood to Scott Tie per operating day.
- Currently there are six railcars on-site and one was in the process of being loaded at the time of the inspection. The other five railcars will not be loaded until they receive clearance from the railroad according to Mr. Flowers. This is because the destination for these railcars is a rail spur in Idaho which is currently unavailable.
- Mr. Flowers stated that they have not had any spills and they have not removed or covered over any sampling areas since the previous inspection. He stated that they have spread the larger type gravel on the driving paths, but not on any of the storage areas. At the time of the inspection, I observed apparent fresh creosote drippage where treated ties were being stored. This was based on the dark stains and/or oil sheens.

## 5.0 Sampling

### 5.1. Purpose and Objective

The purpose and objective of the previous sampling inspections was discussed in the Quality Action Project Plan (QAPP) included in the previous inspection reports. As stated above, the purpose of this 9/15/09 focused sampling inspection was to collect samples at the same locations

as the previous 3/25/04 inspections. Based on the levels of contamination in the soil samples previously collected at Scott Tie (i.e., if they have diminished considerably in this current sampling) and if the contaminant levels are now below health-based levels, then EPA can determine whether further action is required.

## 5.2. Weather Conditions

The weather was warm and cloudy. It had rained the previous day.

## 5.3. Sampling Procedures

In general, the sampling procedures were as discussed in the QAPP and the samples were collected as stated on the Field Sheets (see attachment 9).

## 5.4 Samples Collected / Sample Locations

The sample numbers and locations collected previously and during this current inspection are listed in Table #1 below. The current locations are also shown on the layout in attachment 10. The previous and current sampling locations were the same, except that the previous water samples were not repeated due to insufficient available water, the background sample was not repeated due to the use of previous data, and two additional soil samples were collected (samples #4545-5 and 4545-6). The two additional samples were collected because a new type of preservative was being used and fresh drippage was observed with an oil sheen where treated wood was actively being stored.

**TABLE #1**

3/25/04 SAMPLE #	9/15/09 SAMPLE #	SAMPLE DESCRIPTION	3/25/04 PHOTO NUMBERS IN PREVIOUS INSPECTION REPORT	9/15/09 PHOTO NUMBERS
1/1FD	4545-2	Scott Tie - Northwest Soil and Duplicate	20	17, 18
2	4545-1 / 4545-1FD	Scott Tie - Southwest Soil	23	11, 12, 13
3	4545-3	Scott Tie - Southeast Soil	24	4, 7
4	4545-4	Scott Tie - Northeast Soil	25	3, 9, 10
5	Not repeated	Scott Tie - Background Soil	26	N/A
101/101FD	None available to sample.	Scott Tie - North Puddle and Duplicate	2, 21	N/A
102	None available to sample.	Scott Tie - South Puddle	22	N/A
201/201FD	4544-1 / 4544-1FD	Missouri Tie & Timber - Creosote Preservative	(3 and 4 in Missouri Tie & Timber inspection report)	1 and 2
N/A	4545-5	Scott Tie - Southeast Soil 2 (where fresh drippage was observed)	N/A	5, 6, 7, 8
N/A	4545-6	Scott Tie - Northwest Soil 2 (where fresh drippage was observed)	N/A	14, 15, 16

The field sheets which contain the sample descriptions and the Chain-of-Custody forms are included as attachments 9 and 11. Mr. Flowers did not request split samples when I offered, therefore they were not provided.

### 5.5 Analytical Results

The analytical results are included as attachment 12A and 12B. Attachment 12A includes the total semi-volatile data reported to the Reporting Limits (RL). Attachment 12B includes the total semi-volatile data reported to the minimum detection limits (MDLs) and the calculated TCLP semi-volatiles. To compare the levels of contamination in the samples previously collected on 3/25/04 to the current levels, the analytical results are listed in the table included as attachment 13. The following is a summary of the analytical results.

- The creosote preservative samples collected at Missouri Tie & Timber were less than the previous 3/25/04 values, except for the shaded boxes in attachment 13 for the creosote preservative samples #4544-1 and 4544-1FD. One constituent was higher than the previous 3/25/04 MDL and the remaining were not comparable. The results for the constituents that could not be compared were because the detected values or MDLs were less than the previous MDLs.
- The 4-methylphenol (*p*-cresol) constituent was detected in the Missouri Tie & Timber wood preservative samples at 530 and 490 mg/kg (see attachment 12A). This was above the TCLP regulatory limit of 200 mg/L. After receiving this analytical data, I also requested the TCLP semi-volatile results on the samples. The laboratory determined that the TCLP for 4-methylphenol was less than the regulatory limit of 200 mg/L based on laboratory procedures for calculating the TCLP (calculated by dividing the total by 20). However, 40 CFR 261.24 states that where the waste contains less than 0.5% filterable solids, the waste itself, after filtering, is considered to be the extract for TCLP analysis. Since the exact amount of filterable solids in the samples is unknown, **I recommend that a TCLP analysis be conducted on the wood preservative wastes at Missouri Tie & Timber.** The wood preservative wastes generated at Missouri Tie & Timber are discussed in the previous 3/7/01 inspection report. It should be noted as stated above, that the wood preservative wastes that are shipped off-site are currently being manifested as a F034 hazardous waste (although F034 is not listed for cresol). However, some creosote drippage was observed on the ground during the 3/7/01 Missouri Tie & Timber inspection.
- The soil sample constituents that have diminished since the previous inspection are the constituents where the detected values were lower than the previous detected values or where the MDLs were lower than the previous detected value.
- The soil sample constituents that have not diminished since the previous inspection are the constituents where the detected values were higher than the previous detected values or the previous MDLs; (See the shaded boxes in attachment 13 for soil samples #4545-1 through 4545-4.)

- For some of the soil sample constituents, it is unknown whether the values have diminished since the previous inspection because the values are not comparable. This would be the case for the following: (1) the detected values or MDLs were less than the previous MDLs; and (2) the MDLs were higher than the previous MDLs. (See the shaded boxes in attachment 13 for soil samples #4545-1 through 4545-4.)
- For the fresh drippage soil samples (4545-5 and 4545-6), all the detected values were higher than the background values by a factor of more than two (see attachment 13). Based on this, creosote releases have occurred at Scott Tie. Also, as stated in the previous 3/25/04 inspection report, one of the criteria used to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The detected constituents in attachment 13 that are listed in Appendix VIII have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

### 5.5 QC Analysis

According to the QAPP, the acceptance limit for the precision assessed via field duplicates will be less than or equal to 50 percent relative percent difference. The precision was calculated for the detected PAHs. The relative percent difference falls within the acceptance limits (see attachment 14).



Dedriel Newsome

Dedriel L. Newsome

Environmental Engineer

Date: 11/13/09

Attachments

1. Entry / Exit Checklist (1 page)
2. Confidentiality Notice (1 page)
3. Receipt for Documents and Samples (1 page)
4. Creosote Waste Manifest (1 page)
5. EPA RCRA Handler Information Report (1 page)
6. Missouri Notification and Waste Stream Information Sheet (1 page)
7. P1 Creosote Oil MSDS (7 pages)
8. Heavy Fuel Oil (4 pages)
9. Field Sheets for 4544 and 4545 (9 pages)
10. Facility Layout With Sampling Locations and Photo Locations (2 pages)
11. Chain-of-Custody for 4544 and 4545 (2 pages)
12. Analytical Results for 4544 and 4545
  - A. Results for 4544 and 4545 Reported to the RL
    - i. Results for 4544 and 4545 Reported to the RL (6 pages)
    - ii. Results for 4544 and 4545 Reported to the RL (9 pages)
  - B. Results for 4544 Reported to the MDLs (9 pages)
13. 3/25/04 and 9/15/09 Sampling Results Comparison Table (1 page)
14. QC Data (1 page)

Photo Log (2 pages)

Also see attachment 10, page 2 for photo directions.

Photographs (12 pages / 22 photos)

Facility: Scott Tie Missouri Tie

Date: 9/15/09

Arrival time: ~ 8:45 am

**DRIVE-BY**

1. Drive-by conducted from public right-of-way? ☒ Yes ☐ No
2. Determine the direction "North" with respect to the facility and provide a brief sketch of the layout and orientation (as can be viewed from the public right-of-way): →
3. Obvious concerns visible from public right-of-way (photos)? ☐ Yes ☒ No

Facility Orientation

- |                   |                       |                        |
|-------------------|-----------------------|------------------------|
| - Containers      | - Tanks               | - Processing Equipment |
| - Loading Areas   | - Unloading Areas     | - Security Devices     |
| - Open Drums      | - Stressed Vegetation | - Unusual Staining     |
| - Unusual Odors   | - Obvious Discharges  | - Improper Disposal    |
| - Safety Concerns | - Other Concerns      |                        |

**SITE ENTRY AND INBRIEFING**

1. ☒ Used main entrance ☒ Entered during normal operating hours ☐ Excessive delays (>15 minutes - denial of access?) - ☒ No

2. Facility Representative(s): Junior Flowers Title: Full Owner

Title: \_\_\_\_\_

3. Does representative have intimate knowledge of all waste management practices? ☐ Yes ☐ No How long in position? \_\_\_\_\_

**4. Introduction:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Presented credentials  | <input checked="" type="checkbox"/> Explained responsibility to provide accurate information and provided copies of Section 1001 and 1002 U.S.C. to facility |
| <input checked="" type="checkbox"/> Verified presence at correct facility (checked address/I.D. #)                 | <input checked="" type="checkbox"/> Identified personal safety considerations:   |
| <input checked="" type="checkbox"/> Explained authority to conduct inspection (Section 3007 of RCRA)               | <input type="checkbox"/> Completed Multimedia screening checklist  |
| <input checked="" type="checkbox"/> Explained the purpose, scope, and order of the inspection                      | <input type="checkbox"/> Provided SBREFA handout   |
| <input type="checkbox"/> Explained documentation process - worksheets, checklists, photo's, notes, statements, etc | <input type="checkbox"/> Obtained GPS reading  |
| <input checked="" type="checkbox"/> Explained facility's right to claim CBI  |  |

5. Was full access granted? ☒ Yes ☐ By facility representative Other (name): \_\_\_\_\_

☐ No - Access denied Name of person denying access: \_\_\_\_\_ Time of denial: \_\_\_\_\_

Reason for denial, or limitations placed on access:

**EXIT BRIEFING**

1. Reviewed all data collected and documented all concerns or violations? ☒ Yes ☐ No

- Location of the violation, type and amount of waste involved, time frame, frequency, specific dates & when first started occurred
- Illegal units - unit location (diagram/picture), dimensions, conditions, construction material, gradient of the base (for spills), other information.
- Illegal disposal - how, when (each occurrence), where sent or disposed of, how shipped, who shipped, when shipped/disposed of, quantity

- ☒ Identified/verified violations from previous inspection were corrected (if applicable)
- ☐ Addressed all unresolved inspection related issues Facility Inspection
- ☒ Summarized findings and observations for the facility representatives

NOV Issued? ☐ Yes ☒ No ☐ Violations clearly identified and explained, including: circumstances, location, and applicable regulations

- ☒ Explained the importance of a timely (14 day) and adequate response
- ☐ Explained that findings and observations are based on your current knowledge of RCRA and that the final findings may differ
- ☒ Explained that compliance officer will make the final compliance decisions and that all compliance questions should be directed toward them
- ☒ Explained that recommendations provided are for informational purposes only and **DO NOT** require specific actions by the facility New Mexico
- ☒ Provided facility with CBI form
- ☒ Prepared Document Receipt form

3. Specific information requested from facility? ☐ Yes ☒ No

4. Facility appears to have awareness of RCRA regulations and/or has its own environmental staff? ☐ Yes ☒ No

5. Facility has copy of applicable regulations? ☒ Yes ☐ No

6. Attitude and demeanor of facility representative(s): ☒ OK ☐ Not OK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
CONFIDENTIALITY NOTICE

Facility Name <b>Scott Tire</b>	
Facility Address <b>Vulcan MO</b>	
Inspector (print) <b>Oedriel Newsome</b>	
U.S. EPA, Region VII, 901 N. 5th St., Kansas City, KS 66101	Date <b>9/15/09</b>

The United States Environmental Protection Agency (EPA) is obligated, under the Freedom of Information Act, to release information collected during inspections to persons who submit requests for that information. The Freedom of Information Act does, however, have provisions that allow EPA to withhold certain confidential business information from public disclosure. To claim protection for information gathered during this inspection you must request that the information be held CONFIDENTIAL and substantiate your claim in writing by demonstrating that the information meets the requirements in 40 CFR 2, Subpart B. The following criteria in Subpart B must be met:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. No statute specifically requires disclosure of the information.
3. Disclosure of the information would cause substantial harm to your company's competitive position.

Information that you claim confidential will be held as such pending a determination of applicability by EPA.

I have received this Notice and <u>DO NOT</u> want to make a claim of confidentiality at this time.	
Facility Representative Provided Notice (print) <b>Junier Flores</b>	Signature/Date <b>Junier Flores 9/15/09</b>

I have received this Notice and <u>DO</u> want to make a claim of confidentiality.	
Facility Representative Provided Notice (print)	Signature/Date

Information for which confidential treatment is requested:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RECEIPT FOR DOCUMENTS AND SAMPLES

Facility Name <u>Scott Tie</u>
Facility Address <u>Vulcan, MO</u>

Documents Collected? YES ☒ (list below) NO ☐

Samples Collected? YES ☒ (list below) NO ☐ Split Samples: YES ☐ NO ☒

Documents/Samples were: 1) Received no charge ☒ 2) Borrowed ☐ 3) Purchased ☐

Amount Paid: \$  Method: Cash ☐ Voucher ☐ To Be Billed ☐

The documents and samples described below were collected in connection with the administration and enforcement of the applicable statute under which the information is obtained.

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

① MO Tie & Timber

Cresote MSDS (7 pgs)

Oil MSDS (4 pgs)

Sample # 1/1 FD, Cresote Preservative

" Manifest (1 pg)

② Scott Tie

Sample # 1/1 FD Soil (same as 3/25/04) #2 7 pgs

2 Soil

3 Soil

4 Soil

5 Soil

6 Soil

NE 1/4 Side in Active Area

West Side " "

Facility Representative (print) <u>Junior Flowers</u>	Signature/Date <u>Junior Flowers 9/15/04</u>
Inspector (print) <u>Dedriel Newsome</u>	Signature/Date <u>Dedriel Newsome 9/15/04</u>
U.S. EPA, Region VII, 901 N. 5th Street, Kansas City, KS 66101	

(rev: 1/20/93)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number M O R O O O 5 0 1 9 2 4	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number <b>004886265 JJK</b>		
5. Generator's Name and Mailing Address MISSOURI TIR & TIMBER P O BOX 730 REYNOLDS, MO 63666 Generator's Phone: 636-2040				Generator's Site Address (if different than mailing address) HWY 72 WEST			
6. Transporter 1 Company Name INTER-RAIL SYSTEMS, INC.				U.S. EPA ID Number T J R 0 0 0 1 1 8 1 9 0			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address CLEAN HARBORS EL DORADO, LLC 309 AMERICAN CIRCLE EL DORADO, AR 71730 Facility's Phone: 870-1063-7173				U.S. EPA ID Number A R D 0 0 0 9 7 4 8 1 9 2			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes
	X	1. PG, HAZARDOUS WASTE, LIQUID, N.O.S., (CREOSOTE), 9, HAZ002, PGII, (ERG 171), P034	7 DM		3500	P	P034
		2.					
		3.					
		4.					
14. Special Handling Instructions and Additional Information 051) PROFILE# CH283285 SPENT CREOSOTE TRANSPORTER#1: MO TRANS ID: H-2367 LICENSE PLATE# MA 2795							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name Tanner, Thomas				Signature [Signature]		Month Day Year 7 3 07	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name: [Name] Signature: [Signature] Month Day Year: 9 2 07 Transporter 2 Printed/Typed Name: _____ Signature: _____ Month Day Year: _____						
DESIGNATED FACILITY	18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number: _____ Facility's Phone: _____						
	18c. Signature of Alternate Facility (or Generator) Month Day Year: _____						
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. _____ 2. _____ 3. _____ 4. _____						
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name: _____ Signature: _____ Month Day Year: _____							

2009

## HANDLER INFORMATION REPORT

September 11,

Procedures for Inspectors performing Site Visits

If the facility wants to make a change, they must complete a Notification of Regulated Waste Activity form # MO780-1164, and send it to the Department of Natural Resources, Waste Management Program, PO Box 176, Jefferson City, MO 65102. The form can be found at <http://www.dnr.mo.gov/forms/780-1164.pdf>

If during the course of the site visit, the inspector/investigator becomes aware of any changes which should be made to the information printed on this form, please make the corrections and return the form to: Beth Koesterer, AWMD/RESP.

EPA RCRA ID Number: MOR000518233 - ADMINISTRATIVE ID NUMBER - DO NOT RELEASE

Name of Company/Site: SCOTT TIE CO INC  
Location of Site: HWY 49 4 MI S OF HWY 49 & K  
VULCAN, MO 63675  
IRON County

Land Type: private

NAICS: 321114 - Wood Preservation

Mailing Address: NA Highway 72 West  
NA, MO NA Reynolds, MO 63666

Site Contact: UNKNOWN UNKNOWN Junior Flowers  
Phone Number: NA 573-689-2040  
Address: UNKNOWN UNKNOWN Highway 72 West.  
UNKNOWN, MO N Reynolds, MO 63666

Current Owner of Site: Scott Tie  
Address: same

Owner Type:  
Current Operator of Site:  
Address:

Operator Type:  
TYPE(S) OF REGULATED ACTIVITY: None No known HAZ waste generated at time of inspection

Hazardous Wastes Handled:

I 04/12/04 N

Certified by State/EPA on 04/12/04 by  
COLLEEN THOMAS 04/12/04  
EPA

Date of Site Visit: 9/15/09

Name of Inspector (Please print): Dedrick Newsome  
(Check one): ☒ EPA R7 ENSV ☐ EPA R7 Contractor ☐ NOWCC/SEE Investigator

Signature of Inspector: Dedrick Newsome

# Notification And Waste Stream Information

Epa ID MOR000518233 Missouri ID 040479 Facility Status Administrative Number

Date EPA Id Issued 04/12/2004 Notification Update Was Received: 04/12/2004 Record Add/Changed: 04/14/2004

Company Name SCOTTIE CO INC

Facility Address HWY 49 4 MI S OF ANNAPOLIS LOCATED/INTER

VULCAN, MO 63675

County IRON

Latitude Decimal Format 0.000000 Longitude Decimal Format 0.000000

Method Of Collection

Collection Site

Mailing Address ~~HWY 49 4 MI S OF ANNAPOLIS LOCATED/INTER~~ Highway 72 West  
~~VULCAN, MO 63675~~ Reynolds, MO 63666

Contact Person/Position Junior Flowers/Owner Phone Number 573-689-2040

Facility Owner same

Facility's Owner Address Highway 72 West  
Reynolds, MO 63666

Owner's Phone Number 573-689-2040 Owner Type Private

Property Owner's Name Scott Tie

Property Owner's Address

Property Owner's Phone Number

Property Owner Type

SIC Code 321114

☐ TSD Facility TSD Identification Number:

☒ Generator/Facility Information is Confidential

RCRA Identification Number:

☐ Large Quantity Handler Of Universal Waste

Registered EPA Hazardous Waste Numbers

No known haz waste generated at time of inspection

# Material Safety Data Sheet

## CREOSOTE OIL

(AWPA P1/P13)

Version: 2

Date Issued: 03/31/08

MSDS No. 614839

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMPANY:** KMG-Bernuth, Inc.  
10611 Harwin, Suite 402  
Houston, Texas 77036

**PHONE NUMBER:** 800-322-8177

**EMERGENCY PHONE:** CHEMTREC: 1-800-424-9300

**NAME USED ON LABEL:** Creosote Oil

**PRODUCT USE:** Wood Preservative

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

IDENTITY	CAS NUMBER	TYPICAL %	OTHER INFORMATION
Coal Tar Creosote (AWPA P1/P13)	8001-58-9	98.5 %	Mixture of aromatic and heterocyclic hydrocarbons
Phenanthrene	85-01-8	< 14.15	Max. impurity level
Flouranthene	206-44-0	< 7.45	Max. impurity level
Pyrene	129-00-0	< 5.80	Max. impurity level
Acenaphthene	83-32-9	< 7.80	Max. impurity level
9H-Fluorene	86-73-7	< 6.60	Max. impurity level
Naphthalene	91-20-3	< 16.15	Max. impurity level
Dibenzofuran	132-64-9	< 4.50	Max. impurity level
Anthracene	120-12-7	< 3.80	Max. impurity level
Benzo (a) anthracene	56-55-3	< 1.50	Max. impurity level
Chrysene	218-01-9	< 1.50	Max. impurity level
Biphenyl	95-52-4	< 1.50	Max. impurity level
Indeno (1,2,3-c,d) pyrene	193-39-5	< 0.10	Max. impurity level
Quinoline	91-22-5	< 0.06	Max. impurity level
Benzo (a) pyrene	50-32-8	< 0.40	Max. impurity level
p-Xylene	106-42-3	< 0.02	Max. impurity level
Benzo (b) fluoranthene	205-99-2	< 0.30	Max. impurity level
Benzo (j) fluoranthene	205-82-3	< 0.20	Max. impurity level
Benzo (k) fluoranthene	207-08-9	< 0.20	Max. impurity level

### SECTION 3: HAZARDS IDENTIFICATION

**PHYSICAL HAZARDS:** Do not use or store near heat or open flame. Close container after each use.

**HEALTH HAZARDS: WARNING.** May be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation, which is accentuated by sunlight. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist. Use with adequate ventilation. Do not take internally. Wash thoroughly after skin contact, before eating, drinking, use of tobacco products, or using restrooms.

### SECTION 4: FIRST AID MEASURES

**IF SWALLOWED:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.



# **MATERIAL SAFETY DATA SHEET**

## **CREOSOTE OIL**

(AWPA P1/P13)

### **SECTION 4: FIRST AID MEASURES - CONTINUED**

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**IF IN EYES:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**HOTLINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-322-8177 for emergency medical advice.

**NOTE TO PHYSICIAN:** Contains petroleum distillate - vomiting may cause aspiration pneumonia.

### **SECTION 5: FIREFIGHTING MEASURES**

**FLASH POINT:** > 155° C (> 311° F) ASTM D-93 (Pensky Marten Closed Cup)

**AUTOIGNITION TEMPERATURE:** Product is not self-igniting.

**FLAMMABLE LIMITS (STP):** Not Determined

**EXTINGUISHING MEDIA:** For small fire, use dry chemical, carbon dioxide, water spray or foam. For large fire, preferably use water/fog. Alternatively, use foam. Cool containing vessels with water in order to prevent pressure build-up, auto-ignition or explosion. Contain run-off to prevent contamination of surface waters.

**PROTECTIVE EQUIPMENT:** Self-contained breathing apparatus with full facepiece and full protective clothing should be worn when fumes and/or smoke are present.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Noxious fumes (carbon monoxide, acrid smoke) may be emitted under fire conditions. Water sprays may cause frothing or eruption in closed tanks.

**HMIS RATING:** Health 2 Fire 1 Reactivity 1

**NFPA RATING:** Health 2 Fire 1 Reactivity 1

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**IN CASE OF SPILL OR OTHER RELEASE:** Wear long-sleeved shirt and long pants, rubber boots over shoes and socks, chemical resistant waterproof gloves, protective chemical safety goggles and a NIOSH-approved pesticide respirator or air-supplied respirator. Absorb with sand, earth, etc., sweep up and place in an approved chemical container. Use non-sparking tools and remove ignition sources. Do not allow product to contaminate surface waters and don't flush to sewer systems.

Dispose in accordance with applicable Federal, State and local regulations. Contaminated materials must be handled and managed as RCRA Hazardous Waste and treated before disposal in an approved landfill. This waste is

# **MATERIAL SAFETY DATA SHEET**

## **CREOSOTE OIL**

(AWPA P1/P13)

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### **SECTION 6: ACCIDENTAL RELEASE MEASURES CONTINUED**

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identified by the EPA as a U051 Hazardous Waste and must meet the treatment standards specified in 40 CFR 268, Subpart D. A RCRA Hazardous Waste Storage Permit is required for storage of wastes beyond 90 days.

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### **SECTION 7: HANDLING AND STORAGE**

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DO NOT contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Keep closures tight and upright to prevent leakage. Keep container closed when not in use. Do not store above 140° F.

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### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**WARNING:** May be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation, which is accentuated by sunlight. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breath vapors or spray mist. Use with adequate ventilation. Do not take internally. Wash thoroughly after skin contact, before eating, drinking, use of tobacco products, or using restrooms.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Examples of acceptable materials for protective clothing (e.g., gloves, overalls, jackets, and boots) required during application and handling of creosote are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene, butyl rubber, or nitrile.

Applicators and other handlers must wear:

- Long-sleeved shirt (or jacket) and long pants
- Shoes (or boots) plus socks
- Chemical resistant gloves
- Protective eyewear
- Chemical resistant apron or overalls

Additionally, for applicators who manually open pressure treatment cylinder doors, who enter such cylinders or related equipment or who are exposed to wood treatment vapors (see below for more details):

- Properly fitting, well-maintained, NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.

Individuals must wear gloves impervious to the wood treatment formulations in all situations where dermal contact with creosote is expected (e.g. handling freshly treated wood and manually opening cylinder doors).

Individuals who manually open cylinder doors must wear gloves and a respirator.

Individuals who enter pressure treatment cylinders and other related equipment that is contaminated with wood treatment formulation (e.g., cylinders that are in operation or are not free of the treatment formulation) must wear protective clothing (including overalls, jacket, gloves, and boots) impervious to the wood treatment formulation and a respirator.

Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask cartridge or canister respirator which is NIOSH-approved.

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE OIL**  
(AWPA P1/P13)

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION CONTINUED**

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**USER SAFETY REQUIREMENTS:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation (manually opening/closing cylinder doors, moving trams out of cylinders, mixing chemicals, and handling freshly treated wood). Wash thoroughly after skin contact and before eating, drinking, use of tobacco products, or using restrooms.

Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and work shoes or boots at the plant. Worn-out protective clothing and equipment must be disposed of in any general landfill, in the trash or in any other manner approved for pesticides.

**OCCUPATIONAL EXPOSURE LIMITS:**

OSHA TWA (benzene-soluble fraction)	0.2 mg/m <sup>3</sup>
ACGIH TWA (benzene-soluble fraction)	0.2 mg/m <sup>3</sup>
NIOSH recommended TWA 10 hours (cyclohexane-extractable fraction)	0.1 mg/m <sup>3</sup>

**OCCUPATIONAL EXPOSURE STANDARDS:** Not established

**VENTILATION:** Use in areas of adequate natural ventilation or provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapors below their respective threshold limit value.

**EYE PROTECTION:** See PERSONAL PROTECTIVE EQUIPMENT (PPE) above.

**BODY PROTECTION:** See PERSONAL PROTECTIVE EQUIPMENT (PPE) above.

**RESPIRATORY PROTECTION:** See PERSONAL PROTECTIVE EQUIPMENT (PPE) above.

**OTHER PROTECTIVE EQUIPMENT:** Eyewash station and safety shower in work area.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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FORMULATION:	Concentrate
PHYSICAL STATE:	Oily, viscous liquid
COLOR:	Dark Brown
ODOR:	Strong aromatic, tar-like
BOILING POINT:	>194° C (>381° F)
MELTING POINT:	Not applicable
FREEZING POINT:	Not available
VAPOR PRESSURE:	~13 mm Hg @ 25° C
VAPOR DENSITY:	>1.0 (air = 1.0)
EVAPORATION RATE:	<1.0 (Butyl acetate = 1.0)
SPECIFIC GRAVITY:	1.03 – 1.18 (Avg. = 1.09)
BULK DENSITY:	8.60 – 9.85 lbs/gal (Avg. = 9.1 lbs/gal)
SOLUBILITY IN WATER:	Insoluble (~322 ug/mL)
pH VALUE:	7-8
% VOLATILES:	475 g/l (3.96 lbs/gal)

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE OIL**  
(AWPA P1/P13)

**SECTION 10: STABILITY AND REACTIVITY**

<b>CHEMICAL STABILITY:</b>	Stable.
<b>CONDITIONS TO AVOID:</b>	Excessive heat and open flame
<b>MATERIALS TO AVOID:</b>	Strong acids, especially chlorosulfonic acid
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Oxides of carbon. Incomplete combustion may lead to formation of carbon monoxides and/or other asphyxiates.
<b>HAZARDOUS POLYMERIZATION:</b>	Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>ACUTE ORAL LD<sub>50</sub>:</b>	725 mg/kg (rat) 433 mg/kg (mouse)
<b>ACUTE DERMAL LD<sub>50</sub>:</b>	7950 mg/kg (species not identified)

**EFFECTS OF OVEREXPOSURE:**

Acute overexposure may be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation, which is accentuated by sunlight. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breath vapors or spray mist. Use with adequate ventilation.

**Ingestion:** Irritation of the gastrointestinal tract followed by nausea and vomiting, abdominal discomfort, rapid pulse, etc. May be fatal.

**Inhalation:** May cause irritation to the respiratory tract, dizziness, respiratory difficulty, convulsions. May be fatal.

**Eyes:** May cause irritation, which is accentuated by sunlight and may cause severe corneal injury, including keratitis, conjunctivitis and corneal abrasion.

**Skin:** May cause irritation, which is accentuated by sunlight and may cause severe burns.

**Cancer Hazard:** Prolonged and repeated skin exposure over many years in the absence of recommended hygienic practices may lead to changes in skin pigmentation, benign skin growth and in some cases, result in skin cancer. In addition, prolonged and repeated breathing of product vapor at levels above the recommended exposure level may present a lung cancer risk.

Creosote is listed as and NTB carcinogen, an IRC probable carcinogen.

**SECTION 12: ECOLOGICAL INFORMATION**

**MARINE POLLUTANT:** This product is toxic to fish and wildlife. Do not apply directly to any body of water or wetlands. Do not contaminate water by cleaning equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE OIL**  
(AWPA P1/P13)

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Dispose in accordance with applicable Federal, State and local regulations. Product wastes must be handled and managed as a RCRA Hazardous Waste and treated before disposal in an approved landfill. This waste is identified by the EPA as a U051 Hazardous Waste and must meet the treatment standards specified in 40 CFR 268, Subpart D. A RCRA Hazardous Waste Storage Permit is required for storage of wastes beyond 90 days.

**CONTAINER DISPOSAL: Bulk Tanks:** Triple rinse (or equivalent) and wash with appropriate cleaners before reusing.

**TREATED WOOD DISPOSAL:** Wood which has been treated with this product should be discarded by burial or ordinary trash collection. Do not burn treated wood in an outdoor fire or in stoves or fireplaces because toxic chemicals may be produced as part of the smoke and ashes.

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**SECTION 14: TRANSPORT INFORMATION**

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**DOT PROPER SHIPPING NAME:** UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Creosote), 9, III, Marine Pollutant (Creosote), RQ (Creosote)

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**SECTION 15: REGULATORY INFORMATION**

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**UNITED STATES EPA:** EPA Reg. No. 61483-9  
EPA Signal Word – WARNING

**OTHER:**

**SARA 311 Hazards Classification:** Immediate, Delayed, Fire

**SARA 313 Toxic Chemicals:** See Section 2 for list of chemicals, CAS numbers and maximum concentration by % weight.

**REPORTABLE QUANTITIES:** Creosote – 8001-58-9: 1 pound

**CALIFORNIA PROPOSITION 65 –** Contains chemicals known to the state to cause cancer or reproductive toxicity.

**WHMIS CLASSIFICATION (CANADA):** Class D, Division 2, Subdivision A, very toxic material.

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE OIL**  
(AWPA P1/P13)

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**SECTION 16: OTHER INFORMATION**

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**Reason for MSDS Revision:** General periodic review and update.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof KMG-Bernuth, Inc. (Company). makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Company be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

MSDS No.: 614839

Revision No.: 2

Supersedes: March 24, 2005

Date: March 31, 2008

Prepared by Scott Hathorn III

Approved by Scott Hathorn III



# MATERIAL SAFETY DATA SHEET

MSDS # 61-AS4

## SINCLAIR HEAVY FUEL OIL

**TRADE NAME:** Heavy Fuel Oil

**APPLICATIONS:** Fuel in boilers and heaters

**SYNONYMS:** Shurry, No. 5 Fuel Oil, decant, Low Sulfur No. 6, High Sulfur No. 6, No. 6 Fuel Oil

**CAS REGISTRY #:** 64741-62-4

**CHEMICAL FAMILY:** Hydrocarbon Mixture

**EMERGENCY PHONE:** CHEMTREC - (800) 424-9300 or (703) 527-3887 (collect)

**SUPPLIER:** Sinclair Oil Corporation  
P.O. Box 30825  
Salt Lake City, Utah 84130

**TELEPHONE / FAX:** (888) 340-3466 / (801) 524-2740

COMPONENTS:	CAS#	Typical wt. %
Cracked Heavy Oil	64741-62-4	Up to 99
No. 2 Diesel	68478-34-6	0-10
Flux	68512-62-9	0-50
Naphthalene	91-20-3	0-2

**APPEARANCE:** Thick Dark Brown Oil

**PHYSICAL STATE:** Liquid

**ODOR:** Strong Hydrocarbon

**EMERGENCY OVERVIEW:** Can cause Eye and Skin Irritation. Avoid prolonged contact with eyes, skin, and clothing.

### POTENTIAL HEALTH EFFECTS

**INHALATION:** None expected under normal conditions, use with adequate ventilation

**EYE CONTACT:** May cause eye irritation.

**SKIN CONTACT:** Repeated skin contact with components of this material may cause harmful effects.

**INGESTION:** Based on animal testing, the oral acute toxicity is presumed to be slight to moderate.

**INHALATION:** Remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists. If breathing stops, use resuscitation measures.

**EYE CONTACT:** Flush immediately with water for at least 15 minutes. Seek medical attention promptly.

**SKIN CONTACT:** Wash contact areas with soap and water. Launder contaminated clothing before reuse. Discard contaminated leather articles.

**INGESTION:** Do not induce vomiting. Seek medical assistance promptly.

**FLASH POINT (°F):** 150 °F

**FLAMMABLE LIMITS:** LEL - 1% UEL - 5%

**AUTOIGNITION TEMPERATURE:** 765°F

**FLAMMABILITY CLASSIFICATION:** Flammable Liquid

**GENERAL HAZARD:** Incomplete burning can produce carbon monoxide. Water or foam may cause frothing, which can be violent and endanger fire fighters, especially if sprayed into containers of hot liquids.

**FIRE FIGHTING INSTRUCTIONS:** Keep personnel removed from and up-wind of fire. Use CO<sub>2</sub>, foam, dry chemical, Halon, or water fog. Cool adjacent structures and storage drums with water spray. Evacuate area. Prevent runoff from fire control dilution from entering streams or drinking water supply.

**FIRE FIGHTING EQUIPMENT: HAZARDOUS COMBUSTION PRODUCTS:** Use of SCBA in enclosed or confined spaces, or as otherwise needed (Bunker gear).

**Hazardous Decomposition Products:** May produce carbon monoxide with incomplete burning.

**LAND SPILL:** Treat spill as an oil spill. Eliminate all sources of ignition. Remove leaking containers to a safe area. Contain and remove by mechanical means. Guard against contamination of water supplies. Solidified asphalt can be scraped up from the ground using mechanical dredges or lifts. Runoff may create fire or explosion hazard in sewers. Report spills to appropriate authorities. Dispose of in accordance with Federal, State, and Local regulations.

**WATER SPILL:** Solidified asphalt may be removed from water with mechanical dredges or lifts. Runoff may create fire or explosion hazard in sewers. Report spills to appropriate authorities. Dispose of in accordance with Federal, State, and Local regulations. Avoid breathing the vapors.

**HANDLING / STORAGE:** Store away from ignition sources in a cool area. When material is heated to application temperatures, precautions should be taken to prevent thermal burns.

**ENGINEERING CONTROLS:** Provide ventilation sufficient to prevent exceeding recommended exposure limits

**PERSONAL PROTECTION:**

**PROTECTIVE CLOTHING:** Use whole body protection, including impervious gloves, boots. Eye and face protection is recommended when contact with material may occur.

**RESPIRATOR:** Approved respiratory protection must be used when vapor or mist concentrations are unknown or exceed the TLV. Avoid prolonged or repeated breathing of vapor or mists.



## OCCUPATIONAL EXPOSURE LIMITS

COMPONENT	LIMIT	TWA	STEL	CEILING	NOTATION	OTHER
Asphalt Vapors	OSHA PEL	0.5mg/M <sup>3</sup>			A4	
Naphthalene	OSHA PEL	10 ppm				

A1= Confirmed Human Carcinogen  
A3= Confirmed Animal Carcinogen with Unknown Relevance to Humans  
A4= Not Classified as a Human Carcinogen  
CNS= Central Nervous System  
Skin= Absorption through the skin may contribute to overall exposure

APPEARANCE/PHYSICAL STATE: Liquid

COLOR: Brown

DENSITY/SPECIFIC GRAVITY (g/ml): 0.9 - 1.1

VAPOR DENSITY (air=1): Greater than 1

VAPOR PRESSURE: NA

BOILING POINT/RANGE: 800 °F

SOLUBILITY IN WATER: No

VISCOSITY: N/A/F

pH: N/A

FREEZING POINT: NA

GENERAL: This product is stable

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Avoid Strong oxidizers, acids and alkalis

HAZARDOUS DECOMPOSITION: Incomplete burning can produce carbon monoxide.

SYSTEMIC: Petroleum-derived fuels and fuel oils are complex and variable mixtures of hydrocarbons. In general, the more viscous the mixture, the less toxic it will be. At high-level exposures, humans experience multiple organ failures, some of which may be due to hypoxia and secondary to the failure of other organ systems. In humans kidney failure has been noted only at high, acute levels of exposures, and appears reversible. Liver enzymes may be transiently elevated. At lower level exposures, most acute health effects are reversible. People can be exposed by inhalation, ingestion and dermal contact. Frequently, people are exposed by combined dermal and inhalation exposure.

ACUTE: Heavy fuel oil is less acutely toxic than other petroleum derived fuels.

Inhalation: Headaches, confusion, disorientation, blurred vision occur with inhalation. Higher exposures may cause hallucinations, CNS excitation, drowsiness, CNS depression. Seizure and coma occur from very high exposures and death may result from respiratory depression. ECG changes, cardiac arrhythmias, tachycardia, shock and cardiovascular collapse can occur. Pneumonia, pulmonary edema and hemorrhages can occur.

Ingestion: Central nervous system, cardiovascular, and respiratory effects have been reported with acute exposures to various hydrocarbon fuels and oils similar to those reported with inhalation. Nausea, vomiting, cramping and diarrhea may occur.

**Eye:** Conjunctivitis and burning, watery eyes have been reported in acute exposures to various hydrocarbon fuels and oils

**Skin:** Mild erythema to full thickness chemical burns have occurred after prolonged exposure to various hydrocarbon fuels and oils.

**CHRONIC:** Chronic exposure results in kidney damage in male rats. However, this damage appears to be related to a protein produced in large amounts in male rats, but not in humans or female rats. Occupational exposures in petroleum refining are considered Group 2A (probably carcinogenic) by IARC.

RCRA: Disposal of this product or material contaminated with product may be regulated by RCRA due to the characteristic of ignitability.

EPA Hazard Class: Acute Hazard/Chronic Hazard/Fire Hazard.  
Dispose of in accordance with Federal, State, and Local regulations.

DOT (Department of Transportation):

PROPER SHIPPING NAME: Hot Fuel Oil

HAZARD CLASS: 3

IDENTIFICATION NUMBER: UN 1993 PG III

NAERG98 NUMBER: 128

CERCLA (Comprehensive Environmental Response Compensation and Liability Act): Naphthalene is a hazardous substance under CERCLA and therefore subject to emergency notification requirements.

SARA TITLE III (Superfund Amendments and Reauthorization Act): Naphthalene is subject to SARA Title III, Sections 311 and 312, which require MSDS reporting and Hazardous Chemical Inventory reporting. Naphthalene is also subject to SARA Title III, Section 313, which requires Chemical Release reporting.

NFPA 704/HMIS:

Health - 0 Flammability - 2 Reactivity - 0  
(0 = insignificant, 1 = slight, 2 = moderate, 3 = high, 4 = extreme)

REVISION SUMMARY:  
Complete review of MSDS, December 2005.

THIS PRODUCT MATERIAL SAFETY DATA SHEET PROVIDES HEALTH AND SAFETY INFORMATION. THE PRODUCT SHOULD BE USED IN APPLICATIONS CONSISTENT WITH THIS PRODUCT LITERATURE. FOR ANY OTHER USES, EXPOSURES SHOULD BE EVALUATED SO THAT APPROPRIATE HANDLING PRACTICES AND TRAINING PROGRAMS CAN BE ESTABLISHED TO ENSURE SAFE WORKPLACE OPERATIONS.

THIS MATERIAL SAFETY DATA SHEET IS PROVIDED IN GOOD FAITH AND MEETS THE REQUIREMENTS OF THE HAZARDOUS COMMUNICATION PROVISIONS OF SARA TITLE III AND 29CFR1910.1200(g) OF THE OSHA REGULATIONS. THE ABOVE INFORMATION IS BASED ON REVIEW OF AVAILABLE INFORMATION SINCLAIR BELIEVES IS RELIABLE AND IS SUPPLIED FOR INFORMATIONAL PURPOSES ONLY. SINCLAIR DOES NOT GUARANTEE ITS COMPLETENESS OR ACCURACY. SINCE CONDITIONS OF USE ARE OUTSIDE THE CONTROL OF SINCLAIR, SINCLAIR DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, AND ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM THE USE OF THE ABOVE DATA. NOTHING HEREIN IS INTENDED TO PERMIT INFRINGEMENT OF VALID PATENTS AND LICENSES.

# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4544 Sample Number: 1 QC Code: \_\_\_ Matrix: Waste Tag ID: 4544-1-\_\_\_

Project ID: DNSTCORMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection  
City: Reynolds State: Missouri  
Program: RCRA Enforcement

Location Desc: Missouri Tie - East Catch Vat Tank for Treatment Cylinder #1  
(North east Door)

Storet ID: \_\_\_\_\_ External Sample Number: \_\_\_\_\_

Expected Conc: \_\_\_\_\_ (or Circle One: Low Medium High <sup>2100% Creosote and Oil</sup> <sub>(CPAHs)</sub> Date \_\_\_\_\_ Time(24 hr) \_\_\_\_\_  
Latitude: \_\_\_\_\_ Sample Collection: Start: 9/15/09 9:35  
Longitude: \_\_\_\_\_ End: 9/15/09 9:36

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Hazardous Waste

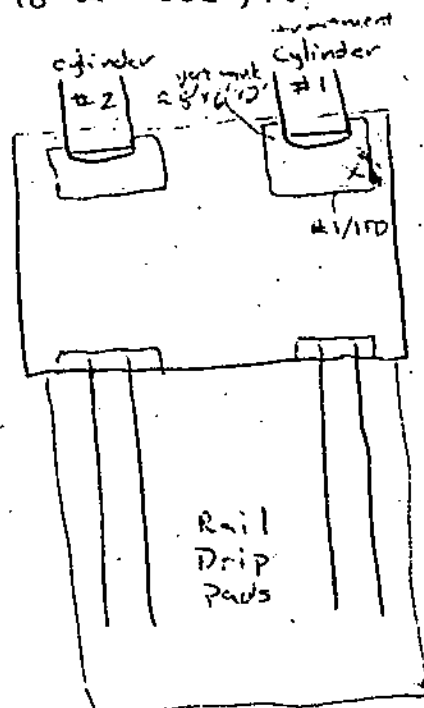
## Sample Comments:

(N/A)

Dark black oily liquid, with some gelled liquid. Liquid from directly below east cylinder #1 door from treatment cylinder #1. Smelled like creosote. The catch vat tank had  $\approx 12"$  (Mr. Flowers says  $\approx 50$  gal) of creosote in it at time of sampling.

Sample collected in a 32 oz wide mouth jar by dipping it into the catch vat tank & then splitting into 2 - 8 oz jars.

photos 1 & 2



Sample Collected By: ~~DN~~ Jim Aycock

1 of 1

# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4544 Sample Number: 1 QC Code: FD Matrix: Waste Tag ID: 4544-2-FD

Project ID: DNSTCORMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection  
City: Reynolds State: Missouri  
Program: RCRA Enforcement

Location Desc: Field Duplicate of #1

Storet ID: \_\_\_\_\_ External Sample Number: \_\_\_\_\_

Expected Conc: \_\_\_\_\_ (or Circle One: Low Medium High) Date \_\_\_\_\_ Time(24 hr) \_\_\_\_\_

Latitude: \_\_\_\_\_ Sample Collection: Start: 9/15/09 9:35

Longitude: \_\_\_\_\_ End: 9/15/09 9:36

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - <u>8</u> oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Hazardous Waste

## Sample Comments:

(N/A)

see field sheet #1

Sample Collected By: DN Sim Aycock

# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4545 Sample Number: 212N QC Code:      Matrix: Solid Tag ID: 4545-212N

Project ID: DNSTCOVMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection  
City: Vulcan State: Missouri  
Program: RCRA Enforcement

Location Desc: Scott Tie - Southwest Soil

Storet ID:                      External Sample Number:                     

Expected Conc:                      (or Circle One: Low Medium High) <sup>Cause</sup> (PAHs) Date 9/15/09 Time(24 hr) 11:58  
Latitude:                      Sample Collection: Start: 9/15/09 End: 9/15/09  
Longitude:                     

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

## Sample Comments:

(N/A)

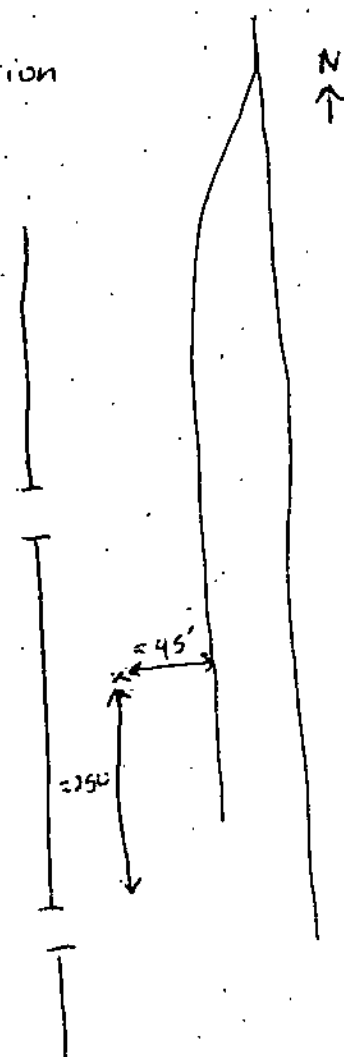
Dark black gravel sand dirt with some dead vegetation  
Moist; Removed some tall grass

~0-1" due to gravel, in a ~1' square area

SS spoon → Alpan → 8oz jar  
mix

photos ~~11-13~~ 17+18

Sample Collected By: DN Jim Aycock  
212N



# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4545 Sample Number: ~~11~~<sup>1</sup><sub>N/A</sub> QC Code: ~~FD~~<sup>1</sup><sub>N/A</sub> Matrix: Solid Tag ID: 4545-~~11~~<sup>1</sup><sub>N/A</sub>-~~FD~~<sup>1</sup><sub>N/A</sub>

Project ID: DNSTCOVMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection  
City: Vulcan State: Missouri  
Program: RCRA Enforcement

Location Desc: Scott Tie - South west Soil

Storet ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: \_\_\_\_\_ (or Circle One: Low Medium High) <sup>Crescote</sup> (PAHs) Date \_\_\_\_\_ Time(24 hr) \_\_\_\_\_

Latitude: \_\_\_\_\_

Sample Collection: Start: 9/15/09

11:58

Longitude: \_\_\_\_\_

End: 9/15/09

11:59

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

## Sample Comments:

(N/A)

See field sheet #1.

Sample Collected By: ~~DN~~<sup>1</sup><sub>N/A</sub> Jim Aycock

# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4545 Sample Number: ~~2~~ <sup>2</sup> QC Code:        Matrix: Solid Tag ID: 4545-~~1~~ <sup>2</sup>

Project ID: DNSTCOVMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection  
City: Vulcan State: Missouri  
Program: RCRA Enforcement

Location Desc: Scott Tie - Northwest Soil

Storet ID:                      External Sample Number:                     

Expected Conc: (or Circle One: Low Medium High) <sup>Cresate</sup> PAHs Date Time(24 hr)  
Latitude:                      Sample Collection: Start: 9/15/09 12:18  
Longitude:                      End: 9/15/09 12:23

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

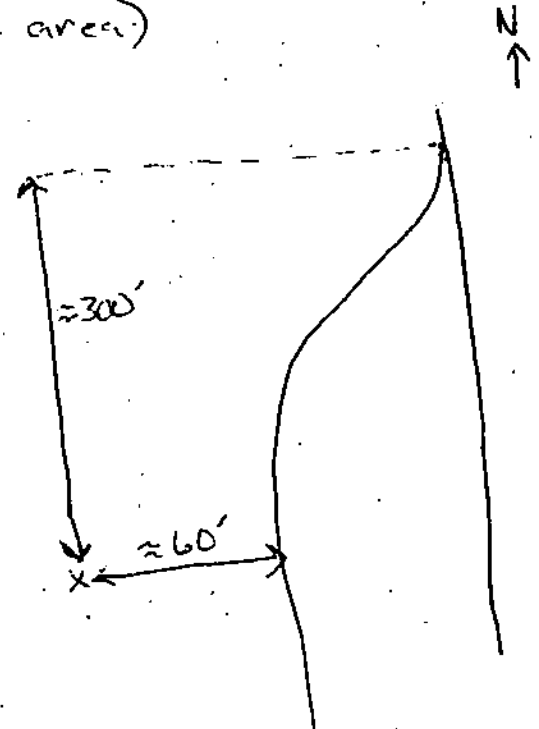
## Sample Comments:

(N/A)

Dirt with rock & gravel; Top  $\approx 1/8$ " brown soil and underneath was dark (black) soil.  
 $\approx 0 - 1/2$ " due to gravel, in a  $\approx 1'$  square area)

SS spoon  $\rightarrow$  Al pan  $\rightarrow$  8oz jar  
mix

photos ~~17+18~~ <sup>20N</sup>  
11 thru 13



Sample Collected By: ~~BT~~ <sup>20N</sup> Jim Aycock

# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4545 Sample Number: 3 QC Code: Matrix: Solid Tag ID: 4545-3-

Project ID: DNSTCOVMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection  
City: Vulcan State: Missouri  
Program: RCRA Enforcement

Location Desc: Scott Tie - Southeast Soil

Storet ID: External Sample Number:

Expected Conc: (or Circle One: Low Medium High) <sup>Crescent</sup> (PAHs) Date: Time (24 hr)

Latitude: Sample Collection: Start: 9/15/09 11:33

Longitude: End: 9/15/09 11:36

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

## Sample Comments:

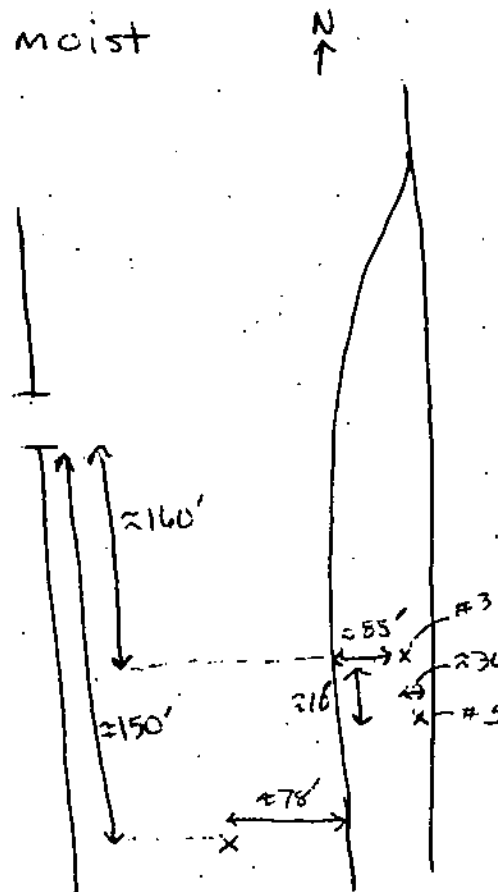
(N/A)

Dark black soil with rocks, pebbles, + sand; moist  
Removed large pieces of gravel.  
~ 0-1" in a ~ 1' square area due to gravel

SS spoon → Al pan → 8oz jar  
mix

photos 4 + 7

Sample Collected By: DN Jim Aycock  
AZN





# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4545 Sample Number: 4 QC Code: \_\_\_ Matrix: Solid Tag ID: 4545-4-\_\_\_

Project ID: DNSTCOVMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection  
City: Vulcan State: Missouri  
Program: RCRA Enforcement

Location Desc: Scott Tie - Northeast Soil

Storet ID: \_\_\_\_\_ External Sample Number: \_\_\_\_\_

Expected Conc: \_\_\_\_\_ (or Circle One: Low Medium High) <sup>Cresate</sup> (PAHs) Date \_\_\_\_\_ Time(24 hr) \_\_\_\_\_  
Latitude: \_\_\_\_\_ Sample Collection: Start: 9/15/09 11:23  
Longitude: \_\_\_\_\_ End: 9/15/09 11:27

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

## Sample Comments:

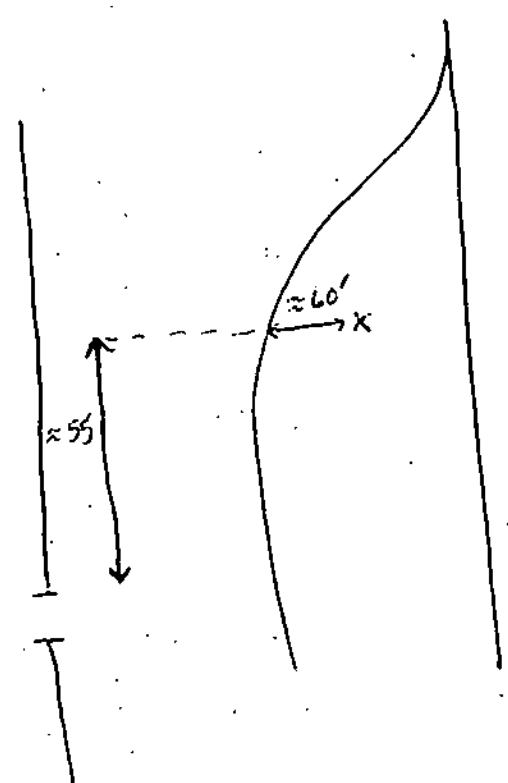
(N/A)

Dark black soil with oily residue; moist  
Removed large gravel + weeds

~0-1" in a ~1' square due to gravel

SS spoon → Alpan → 8oz jar  
mix

photos 3, 9+10



Sample Collected By: DN Sim Aycock  
DN

# Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 4545 Sample Number: 5 QC Code: Matrix: Solid Tag ID: 4545-5-

Project ID: DNSTCOVMO

Project Manager: Dedriel Newsome

Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection

City: Vulcan

State: Missouri

Program: RCRA Enforcement

Location Desc: Scott Tie - Southeast Soil #2

Storet ID:

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) <sup>Carcinogenic</sup> (PAHs) Date Time(24 hr)

Latitude:

Sample Collection: Start: 9/15/09

11:42

Longitude:

End: 9/15/09

11:45

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds In Soil
0 -	4 Deg C	0 Days	1 Percent Solid

## Sample Comments:

(N/A)

Very moist dark oily soil with rocks, pebbles. Had an oil sheen and the top layer was  $\approx 1/4$ " black soil and then brown soil underneath.

$\approx 0-1/2$ " due to gravel in a 2' square

SS spoon  $\rightarrow$  Al pan  $\rightarrow$  8oz jar  
Mix

photos 5 thru 8

Sample Collected By: ~~DN~~ Jim Aycock

# Sample Collection Field Sheet

US EPA Region 7  
Kansas City, KS

ASR Number: 4545 Sample Number: .6 QC Code: \_\_ Matrix: Solid Tag ID: 4545-6-\_\_

Project ID: DNSTCOVMO Project Manager: Dedriel Newsome  
Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection  
City: Vulcan State: Missouri  
Program: RCRA Enforcement

Location Desc: Scott Tie - Northwest Soil #2

Storet ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: \_\_\_\_\_ (or Circle One: Low Medium High) <sup>Cresote</sup> (PAHs) Date \_\_\_\_\_ Time (24 hr) \_\_\_\_\_

Latitude: \_\_\_\_\_

Sample Collection: Start: 9/15/09 12:11

Longitude: \_\_\_\_\_

End: 9/15/09 12:12

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

## Sample Comments:

(N/A)

Very moist soil with oily sheen with rocks, gravel; slight oily smell.

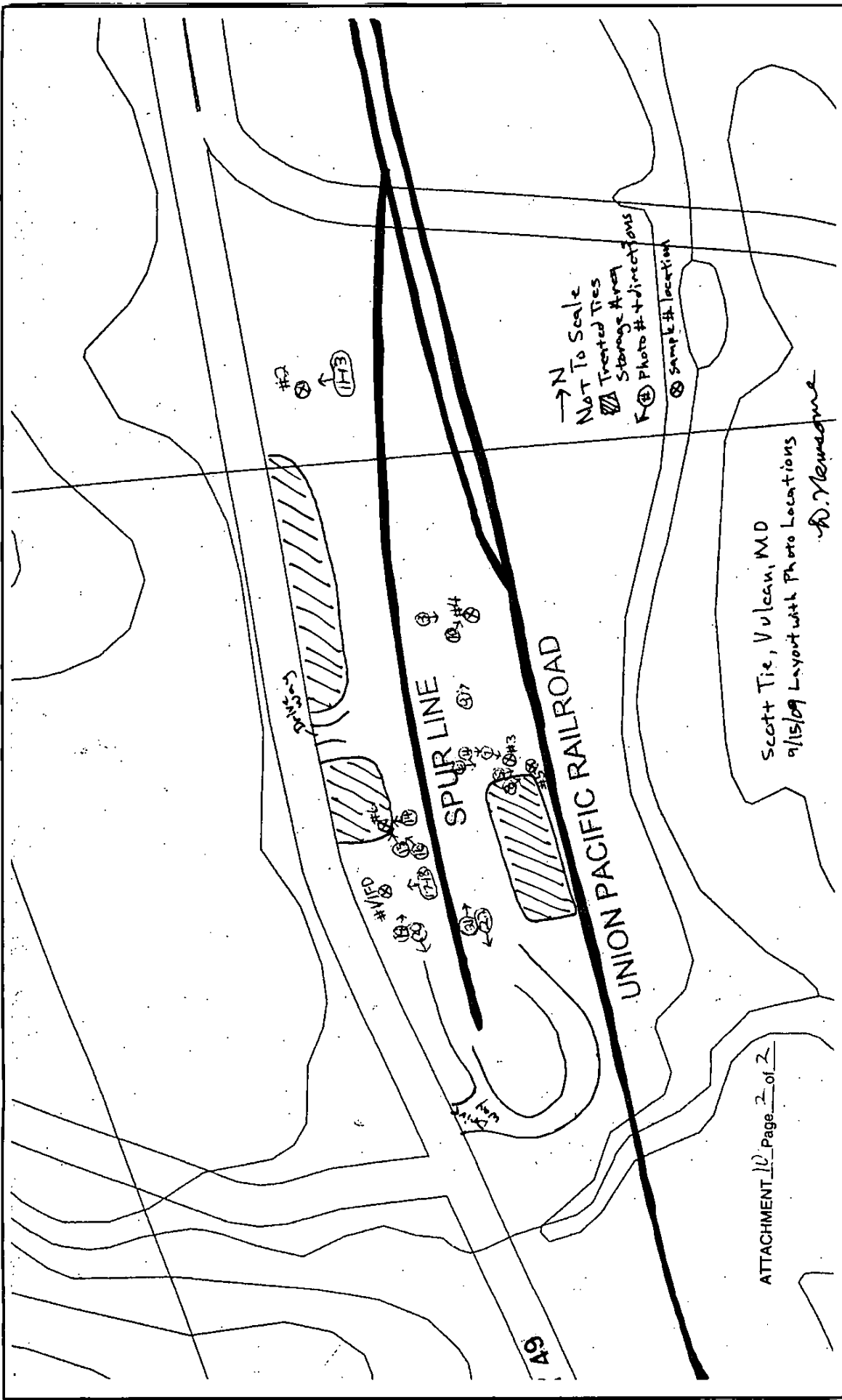
~ 0 - 1/4" to 1/2" in a 2' square due to gravel

SS spoon → Al pan → 8oz jar  
mix

photos 14 thru 16

Sample Collected By: ~~DN~~ Jim Aycock





**CHAIN OF CUSTODY RECORD  
ENVIRONMENTAL PROTECTION AGENCY REGION VII**

ACTIVITY LEADER(Print) <b>Deedric Newsome</b>	NAME OF SURVEY OR ACTIVITY <b>Scott Tie Co, Reynolds, MO</b>	DATE OF COLLECTION <b>15</b> DAY <b>9</b> MONTH <b>09</b> YEAR	SHEET <b>1</b> OF <b>1</b>
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SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA					RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	WATER	SLUR	SEDIMENT	TOSS		OTHER
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
4544-1		1								✓	creosote preservative
4544-1FD		1								✓	" "
<b>Nothing Follows</b>											
<div style="font-size: 4em; transform: rotate(-15deg); opacity: 0.5;">Complete</div>											

*Dr. Temp. Rec'd.  
bld 5/10/09  
9/16/09*

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
<u>2</u> PIECE(S) CONSISTING OF <u>BOX(ES)</u> <u>1</u> ICE CHEST(S); OTHER <u>4 ASK # 4545</u>	_____ COMMERCIAL CARRIER: _____ _____ COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) _____

PERSONNEL CUSTODY RECORD			
RELINQUISHED BY (SAMPLER) <b>Deedric Newsome</b>	DATE <b>9/16/09</b>	TIME <b>2:15</b>	RECEIVED BY <b>Amelia Coker</b>
<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED
REASON FOR CHANGE OF CUSTODY	<b>Anal</b>		
RELINQUISHED BY	DATE	TIME	RECEIVED BY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED
REASON FOR CHANGE OF CUSTODY			
RELINQUISHED BY	DATE	TIME	RECEIVED BY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED
REASON FOR CHANGE OF CUSTODY			

ALCn

ALCn

ALCn

ALCn

ALCn

ALCn

ALCn

**CHAIN OF CUSTODY RECORD  
ENVIRONMENTAL PROTECTION AGENCY REGION VII**

ACTIVITY LEADER(Print) <b>Dedriel Newsome</b>	NAME OF SURVEY OR ACTIVITY <b>Scott Tie Co, Vulcan MO</b>	DATE OF COLLECTION DAY <b>15</b> MONTH <b>9</b> YEAR <b>09</b>	SHEET <b>1</b> of <b>1</b>
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**CONTENTS OF SHIPMENT**

SAMPLE NUMBER	TYPE OF CONTAINERS					SAMPLED MEDIA					RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	CUBITAINER	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	WATER	SLURRY	SEDIMENT	SODIUM	OTHER		
										NUMBERS OF CONTAINERS PER SAMPLE NUMBER	
4545-1		1				X					
4545-1FD		1				X					
4545-2		1				X					
4545-3		1				X					
4545-4		1				X					
4545-5		1				X					
4545-6		1				X					
<div style="position: relative; width: 100%; height: 100%;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; font-size: 4em; transform: rotate(-15deg); opacity: 0.5;">Complete</span> </div>											

Nothing Follows

On Temp Recd  
bet 0-1°C

DESCRIPTION OF SHIPMENT <b>7</b> PIECE(S) CONSISTING OF <b>BOX(ES)</b> <b>1</b> ICE CHEST(S); OTHER <b>WASH #4544</b>	MODE OF SHIPMENT <input type="checkbox"/> COMMERCIAL CARRIER: _____ <input type="checkbox"/> COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED <div style="text-align: right; color: blue;">4/16/09</div>
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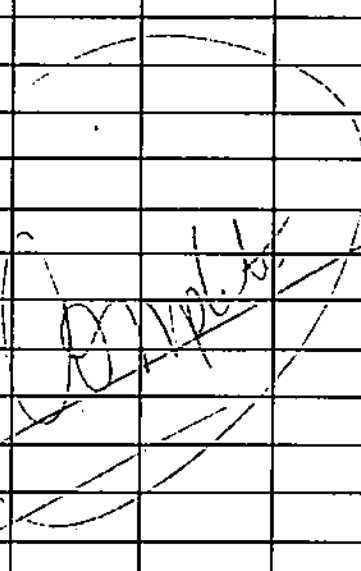
PERSONNEL CUSTODY RECORD			
RELINQUISHED BY (SAMPLER) <b>Dedriel Newsome</b>	DATE <b>9/16/09</b>	TIME <b>12:15</b>	RECEIVED BY <b>Nicole Kohler</b>
<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED
REASON FOR CHANGE OF CUSTODY <b>Anal</b>			
RELINQUISHED BY	DATE	TIME	RECEIVED BY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED
RELINQUISHED BY	DATE	TIME	RECEIVED BY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED



**CHAIN OF CUSTODY RECORD**  
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print) <b>Dedrick Newsome</b>	NAME OF SURVEY OR ACTIVITY <b>Sully Tie Co. Vulcan MO</b>	DATE OF COLLECTION <b>15</b> DAY <b>9</b> MONTH <b>09</b> YEAR	SHEET <b>1</b> of <b>1</b>
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**CONTENTS OF SHIPMENT**

SAMPLE NUMBER	TYPE OF CONTAINERS					SAMPLED MEDIA					RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)												
	CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VQA SET (2 VIALS EA)	water	ice	sediment	dust	other													
												NUMBERS OF CONTAINERS PER SAMPLE NUMBER											
4545-1		1					X																
4545-1FD		1					X																
4545-2		1					X																
4545-3		1					X																
4545-4		1					X																
4545-5		1					X																
4545-6		1					X																
<i>Nothing Follows</i>																							
																							

DESCRIPTION OF SHIPMENT <b>7</b> PIECE(S) CONSISTING OF <b>1</b> BOX(ES) <b>1</b> ICE CHEST(S); OTHER <b>WATER #4544</b>	MODE OF SHIPMENT <b>9/16/09</b> COMMERCIAL CARRIER: _____ COURIER _____ <input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) _____
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PERSONNEL CUSTODY RECORD			
RELINQUISHED BY (SAMPLER) <b>Dedrick Newsome</b>	DATE <b>9/16/09</b>	TIME <b>12:15</b>	RECEIVED BY <b>Nicholas...</b>
<input checked="" type="checkbox"/> SEALED      UNSEALED <input type="checkbox"/>			<input checked="" type="checkbox"/> SEALED      UNSEALED <input type="checkbox"/>
REASON FOR CHANGE OF CUSTODY <b>Anal</b>			
RELINQUISHED BY	DATE	TIME	RECEIVED BY
<input type="checkbox"/> SEALED      UNSEALED <input type="checkbox"/>			<input type="checkbox"/> SEALED      UNSEALED <input type="checkbox"/>
REASON FOR CHANGE OF CUSTODY			
RELINQUISHED BY	DATE	TIME	RECEIVED BY
<input type="checkbox"/> SEALED      UNSEALED <input type="checkbox"/>			<input type="checkbox"/> SEALED      UNSEALED <input type="checkbox"/>
REASON FOR CHANGE OF CUSTODY			

**United States Environmental Protection Agency**  
**Region 7**  
**901 N. 5th Street**  
**Kansas City, KS 66101**

**Date:** OCT 23 2009

**Subject:** Transmittal of Sample Analysis Results for ASR #: 4544

Project ID: DNSTCORMO

Project Description: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.)  
Inspection

**From:** Michael F. Davis, Chief   
Chemical Analysis and Response Branch, Environmental Services Division

**To:**  
Dedriel Newsome  
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

**Project Manager:** Dedriel Newsome**Org:** ENSV/ARCM**Phone:** 913-551-7049**Project ID:** DNSTCORMO**Project Desc:** Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection**Location:** Reynolds**State:** Missouri**Program:** RCRA Enforcement**Purpose:** Site Characterization**GPRA PRC:** 501E50C**Explanation of Codes, Units and Qualifiers used on this report****Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

\_\_\_ = Field Sample  
FD = Field Duplicate

mg/kg = Milligrams per Kilogram

**Data Qualifiers:** Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 4544

## Sample Information Summary

10/23/2009

Project ID: DNSTCORMO Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Waste	Missouri Tie - East catch vat tank for Treatment cylinder #1 (NE Door)		09/15/2009	09:35	09/15/2009	09:36	09/16/2009
1 - FD		Waste	Missouri Tie/Field Duplicate of sample 1		09/15/2009	09:35	09/15/2009	09:26	09/16/2009

Project ID: DNSTCORMO Project Desc Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

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**Analysis      Comments About Results For This Analysis**

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**1    Semi-Volatile Organic Compounds in Hazardous Waste**

**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.

**Method:** EPA Region 7-RLAB Method 3230.2F

**Samples:** 1-\_\_      1-FD

**Comments:**

Laboratory Control Standards:

These hazardous samples were prepared by dilution, gpc clean-up, and analyzed. As there was no extraction efficiency to monitor, there was no Laboratory Control Standard prepared. Note the gel permeation column check standard was used to qualify analyte recoveries post gpc and sample processing, and a Laboratory Duplicate was used to assess repeatability.

4-Nitrophenol was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

bis(2-Chloroisopropyl)ether was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the gel permeation control sample. The actual reporting limit for this analyte may be higher than the reported value.

Project ID: DNSTCORMO

Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

Analysis/ Analyte	Units	1-___	1-FD
1 Semi-Volatile Organic Compounds in Hazardous Waste			
Acenaphthene	mg/kg	15000	14000
Acenaphthylene	mg/kg	340 U	320 U
Anthracene	mg/kg	8600	8100
Benzo(a)anthracene	mg/kg	4200	3900
Benzo(a)pyrene	mg/kg	1900	1800
Benzo(b)fluoranthene	mg/kg	2200	2100
Benzo(g,h,i)perylene	mg/kg	340 U	320 U
Benzo(k)fluoranthene	mg/kg	770	680
Benzolc acid	mg/kg	840 U	800 U
Benzyl alcohol	mg/kg	340 U	320 U
bis(2-Chloroethoxy)methane	mg/kg	340 U	320 U
bis(2-Chloroethyl)ether	mg/kg	340 U	320 U
bis(2-Chloroisopropyl)ether	mg/kg	340 U	320 U
bis(2-Ethylhexyl)phthalate	mg/kg	340 U	320 U
4-Bromophenyl-phenylether	mg/kg	340 U	320 U
Butylbenzylphthalate	mg/kg	340 U	320 U
Carbazole	mg/kg	6500	6100
4-Chloro-3-methylphenol	mg/kg	340 U	320 U
4-Chloroaniline	mg/kg	340 U	320 U
2-Chloronaphthalene	mg/kg	340 U	320 U
2-Chlorophenol	mg/kg	340 U	320 U
4-Chlorophenyl-phenylether	mg/kg	340 U	320 U
Chrysene	mg/kg	4600	4500
Di-n-butylphthalate	mg/kg	340 U	320 U
Di-n-octylphthalate	mg/kg	340 U	320 U
Dibenz(a,h)anthracene	mg/kg	340 U	320 U
Dibenzofuran	mg/kg	10000	8800
1,2-Dichlorobenzene	mg/kg	340 U	320 U
1,3-Dichlorobenzene	mg/kg	340 U	320 U
1,4-Dichlorobenzene	mg/kg	340 U	320 U
3,3'-Dichlorobenzidine	mg/kg	340 U	320 U
2,4-Dichlorophenol	mg/kg	340 U	320 U
Diethylphthalate	mg/kg	340 U	320 U
2,4-Dimethylphenol	mg/kg	510	470
Dimethylphthalate	mg/kg	340 U	320 U
4,6-Dinitro-2-methylphenol	mg/kg	840 U	800 U
2,4-Dinitrophenol	mg/kg	1700 U	1600 U
2,4-Dinitrotoluene	mg/kg	340 U	320 U
2,6-Dinitrotoluene	mg/kg	340 U	320 U
Fluoranthene	mg/kg	21000	20000
Fluorene	mg/kg	15000	14000
Hexachlorobenzene	mg/kg	340 U	320 U
Hexachlorobutadiene	mg/kg	340 U	320 U
Hexachlorocyclopentadiene	mg/kg	340 U	320 U
Hexachloroethane	mg/kg	340 U	320 U

ASR Number: 4544

## RLAB Approved Sample Analysis Results

10/23/2009

Project ID: DNSTCORMO

Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

Analysis/ Analyte	Units	1-__	1-FD
Indeno(1,2,3-cd)pyrene	mg/kg	430	370
Isophorone	mg/kg	340 U	320 U
2-Methylnaphthalene	mg/kg	24000	22000
2-Methylphenol	mg/kg	340 U	320 U
4-Methylphenol	mg/kg	530	490
Naphthalene	mg/kg	26000	24000
2-Nitroaniline	mg/kg	340 U	320 U
3-Nitroaniline	mg/kg	340 U	320 U
4-Nitroaniline	mg/kg	840 U	800 U
Nitrobenzene	mg/kg	340 U	320 U
2-Nitrophenol	mg/kg	340 U	320 U
4-Nitrophenol	mg/kg	840 U	800 U
N-nitroso-di-n-propylamine	mg/kg	340 U	320 U
N-nitrosodiphenylamine	mg/kg	340 U	320 U
Pentachlorophenol	mg/kg	840 U	800 U
Phenanthrene	mg/kg	46000	43000
Phenol	mg/kg	400	370
Pyrene	mg/kg	12000	12000
1,2,4-Trichlorobenzene	mg/kg	340 U	320 U
2,4,5-Trichlorophenol	mg/kg	340 U	320 U
2,4,6-Trichlorophenol	mg/kg	340 U	320 U

United States Environmental Protection Agency  
Region 7  
901 N. 5th Street  
Kansas City, KS 66101

OCT 26 2009

Date:

Subject: Transmittal of Sample Analysis Results for ASR #: 4545

Project ID: DNSTCOVMO

Project Description: Scott Tie Company, Inc. - Woodtreater facility Inspection

From: Michael F. Davis, Chief *MFD* *10/27/09*  
Chemical Analysis and Response Branch, Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

12A11 *DN*  
Attachment *DA* Page 1 of 9



**Project Manager:** Dedriel Newsome**Org:** ENSV/ARCM**Phone:** 913-551-7049**Project ID:** DNSTCOVMO**Project Desc:** Scott Tie Company, Inc. - Woodtreater facility Inspection**Location:** Vulcan**State:** Missouri**Program:** RCRA Enforcement**Purpose:** Site Characterization**GPRA PRC:** 501E50C**Explanation of Codes, Units and Qualifiers used on this report****Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

\_\_\_ = Field Sample

% = Percent

FD = Field Duplicate

ug/kg = Micrograms per Kilogram

**Data Qualifiers:** Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 4545

## Sample Information Summary

10/26/2009

Project ID: DNSTCOVMO Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Solid	Scott Tie - Southwest soil sample		09/15/2009	11:58	09/15/2009	11:59	09/16/2009
1 -	FD	Solid	Scott Tie - Southwest soil/Field Duplicate of sample 1		09/15/2009	11:58	09/15/2009	11:59	09/16/2009
2 -		Solid	Scott Tie - Northwest soil sample		09/15/2009	12:18	09/15/2009	12:18	09/16/2009
3 -		Solid	Scott Tie - Southeast soil sample		09/15/2009	11:33	09/15/2009	11:36	09/16/2009
4 -		Solid	Scott Tie - Northeast soil sample		09/15/2009	11:23	09/15/2009	11:27	09/16/2009
5 -		Solid	Scott Tie - Southeast soil sample #2		09/15/2009	11:42	09/15/2009	11:45	09/16/2009
6 -		Solid	Scott Tie - Northwest soil sample #2		09/15/2009	12:11	09/15/2009	12:12	09/16/2009

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**Analysis      Comments About Results For This Analysis**

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**1    Percent Solid****Lab:** Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3142.9E**Basis:** N/A**Samples:** 1-\_\_      1-FD      2-\_\_      3-\_\_      4-\_\_      5-\_\_      6-\_\_**Comments:**

Samples 4 & 6 were J-coded due to cracked/broken sample jars. The jars were put into plastic bags to aid in the preservation of the sample.

**1    Semi-Volatile Organic Compounds in Soil****Lab:** Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3230.2F**Basis:** Dry**Samples:** 1-\_\_      1-FD      2-\_\_      3-\_\_      4-\_\_      5-\_\_      6-\_\_**Comments:****Additional Comments:**

Note all results were adjusted for % moisture and dilutions as needed.

Naphthalene was J-coded in sample <3>. Although the analyte in question has been positively identified in the samples, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for this analyte may be lower than the reported value.

4-Nitrophenol was UJ-coded in samples <1, 1-fd, 2, 3, 4, 5, and 6>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

Benzoic Acid was UJ-coded in samples <1, 1-fd, 2, 3, 4, 5, and 6>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory control sample. The actual reporting limit for this analyte may be higher than the reported value.

bis(2-Chloroisopropyl)ether was UJ-coded in samples <1, 1-fd, 2, 3, 4, 5, and 6>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the gel permeation control sample. The actual reporting limit for this analyte may be higher than the reported value.

Slight Diethylphthalate contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded

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Analysis	Comments About Results For This Analysis
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indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: <1>.

Acidic compounds were UJ-coded in sample <2>. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of the acidic surrogate analytes. The actual reporting limit for the analytes may be higher than the reported value.

Analysis/ Analyte	Units	1-__	1-FD	2-__	3-__
1 Percent Solid					
Solids, percent	%	92.9	92.9	70.6	93.6
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	690 U	690 U	900 U	1500
Acenaphthylene	ug/kg	690 U	690 U	900 U	730
Anthracene	ug/kg	690 U	690 U	900 U	4100
Benzo(a)anthracene	ug/kg	690 U	690 U	900 U	19000
Benzo(a)pyrene	ug/kg	690 U	690 U	1000	11000
Benzo(b)fluoranthene	ug/kg	940	1000	3200	21000
Benzo(g,h,i)perylene	ug/kg	690 U	690 U	900 U	2000
Benzo(k)fluoranthene	ug/kg	690 U	690 U	950	22000
Benzoic acid	ug/kg	1700 UJ	1700 UJ	2300 UJ	1700 UJ
Benzyl alcohol	ug/kg	690 U	690 U	900 UJ	680 U
bis(2-Chloroethoxy)methane	ug/kg	690 U	690 U	900 U	680 U
bis(2-Chloroethyl)ether	ug/kg	690 U	690 U	900 U	680 U
bis(2-Chloroisopropyl)ether	ug/kg	690 UJ	690 UJ	900 UJ	680 UJ
bis(2-Ethylhexyl)phthalate	ug/kg	690 U	690 U	2500	680 U
4-Bromophenyl-phenylether	ug/kg	690 U	690 U	900 U	680 U
Butylbenzylphthalate	ug/kg	690 U	690 U	900 U	680 U
Carbazole	ug/kg	690 U	690 U	900 U	680 U
4-Chloro-3-methylphenol	ug/kg	690 U	690 U	900 UJ	680 U
4-Chloroaniline	ug/kg	690 U	690 U	900 U	680 U
2-Chloronaphthalene	ug/kg	690 U	690 U	900 U	680 U
2-Chlorophenol	ug/kg	690 U	690 U	900 UJ	680 U
4-Chlorophenyl-phenylether	ug/kg	690 U	690 U	900 U	680 U
Chrysene	ug/kg	810	840	2000	21000
Di-n-butylphthalate	ug/kg	690 U	690 U	900 U	680 U
Di-n-octylphthalate	ug/kg	690 U	690 U	900 U	680 U
Dibenz(a,h)anthracene	ug/kg	690 U	690 U	900 U	970
Dibenzofuran	ug/kg	690 U	690 U	900 U	1500
1,2-Dichlorobenzene	ug/kg	690 U	690 U	900 U	680 U
1,3-Dichlorobenzene	ug/kg	690 U	690 U	900 U	680 U
1,4-Dichlorobenzene	ug/kg	690 U	690 U	900 U	680 U
3,3'-Dichlorobenzidine	ug/kg	690 U	690 U	900 U	680 U
2,4-Dichlorophenol	ug/kg	690 U	690 U	900 UJ	680 U
Diethylphthalate	ug/kg	750 U	690 U	900 U	680 U
2,4-Dimethylphenol	ug/kg	690 U	690 U	900 UJ	680 U
Dimethylphthalate	ug/kg	690 U	690 U	900 U	680 U
4,6-Dinitro-2-methylphenol	ug/kg	1700 U	1700 U	2300 UJ	1700 U
2,4-Dinitrophenol	ug/kg	3400 U	3400 U	4500 UJ	3400 U
2,4-Dinitrotoluene	ug/kg	690 U	690 U	900 U	680 U
2,6-Dinitrotoluene	ug/kg	690 U	690 U	900 U	680 U
Fluoranthene	ug/kg	690 U	690	1900	83000
Fluorene	ug/kg	690 U	690 U	900 U	1300
Hexachlorobenzene	ug/kg	690 U	690 U	900 U	680 U
Hexachlorobutadiene	ug/kg	690 U	690 U	900 U	680 U

ASR Number: 4545

## RLAB Approved Sample Analysis Results

10/26/2009

Project ID: DNSTCOVMO

Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection

Analysis/ Analyte	Units	1-__	1-FD	2-__	3-__
Hexachlorocyclopentadiene	ug/kg	690 U	690 U	900 U	680 U
Hexachloroethane	ug/kg	690 U	690 U	900 U	680 U
Indeno(1,2,3-cd)pyrene	ug/kg	690 U	690 U	980	4200
Isophorone	ug/kg	690 U	690 U	900 U	680 U
2-Methylnaphthalene	ug/kg	690 U	690 U	900 U	680 U
2-Methylphenol	ug/kg	690 U	690 U	900 UJ	680 U
4-Methylphenol	ug/kg	690 U	690 U	900 UJ	680 U
Naphthalene	ug/kg	690 U	690 U	900 U	1400 J
2-Nitroaniline	ug/kg	690 U	690 U	900 U	680 U
3-Nitroaniline	ug/kg	690 U	690 U	900 U	680 U
4-Nitroaniline	ug/kg	1700 U	1700 U	2300 U	1700 U
Nitrobenzene	ug/kg	690 U	690 U	900 U	680 U
2-Nitrophenol	ug/kg	690 U	690 U	900 UJ	680 U
4-Nitrophenol	ug/kg	1700 UJ	1700 UJ	2300 UJ	1700 UJ
N-nitroso-di-n-propylamine	ug/kg	690 U	690 U	900 U	680 U
N-nitrosodiphenylamine	ug/kg	690 U	690 U	900 U	680 U
Pentachlorophenol	ug/kg	1700 U	1700 U	2300 UJ	1700 U
Phenanthrene	ug/kg	710	710	1500	5400
Phenol	ug/kg	690 U	690 U	900 UJ	680 U
Pyrene	ug/kg	690 U	690 U	1600	91000
1,2,4-Trichlorobenzene	ug/kg	690 U	690 U	900 U	680 U
2,4,5-Trichlorophenol	ug/kg	690 U	690 U	900 UJ	680 U
2,4,6-Trichlorophenol	ug/kg	690 U	690 U	900 UJ	680 U

Analysis/ Analyte	Units	4-__	5-__	6-__
1 Percent Solid				
Solids, percent	%	90.0 J	86.6	90.1 J
1 Semi-Volatile Organic Compounds in Soil				
Acenaphthene	ug/kg	710 U	48000	5600
Acenaphthylene	ug/kg	710 U	3700 U	710 U
Anthracene	ug/kg	710 U	29000	7400
Benzo(a)anthracene	ug/kg	710 U	76000	6300
Benzo(a)pyrene	ug/kg	710 U	43000	3600
Benzo(b)fluoranthene	ug/kg	1400	73000	6900
Benzo(g,h,i)perylene	ug/kg	710 U	8200	920
Benzo(k)fluoranthene	ug/kg	710 U	22000	1900
Benzoic acid	ug/kg	1800 UJ	9200 UJ	1800 UJ
Benzyl alcohol	ug/kg	710 U	3700 U	710 U
bis(2-Chloroethoxy)methane	ug/kg	710 U	3700 U	710 U
bis(2-Chloroethyl)ether	ug/kg	710 U	3700 U	710 U
bis(2-Chloroisopropyl)ether	ug/kg	710 UJ	3700 UJ	710 UJ
bis(2-Ethylhexyl)phthalate	ug/kg	710 U	3700 U	710 U
4-Bromophenyl-phenylether	ug/kg	710 U	3700 U	710 U
Butylbenzylphthalate	ug/kg	710 U	3700 U	710 U
Carbazole	ug/kg	710 U	3700 U	4400
4-Chloro-3-methylphenol	ug/kg	710 U	3700 U	710 U
4-Chloroaniline	ug/kg	710 U	3700 U	710 U
2-Chloronaphthalene	ug/kg	710 U	3700 U	710 U
2-Chlorophenol	ug/kg	710 U	3700 U	710 U
4-Chlorophenyl-phenylether	ug/kg	710 U	3700 U	710 U
Chrysene	ug/kg	1100	93000	9600
Di-n-butylphthalate	ug/kg	710 U	3700 U	710 U
Di-n-octylphthalate	ug/kg	710 U	3700 U	710 U
Dibenz(a,h)anthracene	ug/kg	710 U	3700 U	710 U
Dibenzofuran	ug/kg	710 U	7200	4800
1,2-Dichlorobenzene	ug/kg	710 U	3700 U	710 U
1,3-Dichlorobenzene	ug/kg	710 U	3700 U	710 U
1,4-Dichlorobenzene	ug/kg	710 U	3700 U	710 U
3,3'-Dichlorobenzidine	ug/kg	710 U	3700 U	710 U
2,4-Dichlorophenol	ug/kg	710 U	3700 U	710 U
Diethylphthalate	ug/kg	710 U	3700 U	710 U
2,4-Dimethylphenol	ug/kg	710 U	3700 U	710 U
Dimethylphthalate	ug/kg	710 U	3700 U	710 U
4,6-Dinitro-2-methylphenol	ug/kg	1800 U	9200 U	1800 U
2,4-Dinitrophenol	ug/kg	3500 U	18000 U	3600 U
2,4-Dinitrotoluene	ug/kg	710 U	3700 U	710 U
2,6-Dinitrotoluene	ug/kg	710 U	3700 U	710 U
Fluoranthene	ug/kg	1500	450000	36000
Fluorene	ug/kg	710 U	24000	10000
Hexachlorobenzene	ug/kg	710 U	3700 U	710 U
Hexachlorobutadiene	ug/kg	710 U	3700 U	710 U

ASR Number: 4545

## RLAB Approved Sample Analysis Results

10/26/2009

Project ID: DNSTCOVMO

Project Desc: Scott Tie Company, Inc. - Woodtreater facility Inspection

Analysis/ Analyte	Units	4-__	5-__	6-__
Hexachlorocyclopentadiene	ug/kg	710 U	3700 U	710 U
Hexachloroethane	ug/kg	710 U	3700 U	710 U
Indeno(1,2,3-cd)pyrene	ug/kg	710 U	15000	1400
Isophorone	ug/kg	710 U	3700 U	710 U
2-Methylnaphthalene	ug/kg	710 U	3700 U	710 U
2-Methylphenol	ug/kg	710 U	3700 U	710 U
4-Methylphenol	ug/kg	710 U	3700 U	710 U
Naphthalene	ug/kg	710 U	3700 U	710 U
2-Nitroaniline	ug/kg	710 U	3700 U	710 U
3-Nitroaniline	ug/kg	710 U	3700 U	710 U
4-Nitroaniline	ug/kg	1800 U	9200 U	1800 U
Nitrobenzene	ug/kg	710 U	3700 U	710 U
2-Nitrophenol	ug/kg	710 U	3700 U	710 U
4-Nitrophenol	ug/kg	1800 U	9200 U	1800 U
N-nitroso-di-n-propylamine	ug/kg	710 U	3700 U	710 U
N-nitrosodiphenylamine	ug/kg	710 U	3700 U	710 U
Pentachlorophenol	ug/kg	1800 U	9200 U	1800 U
Phenanthrene	ug/kg	1100	58000	58000
Phenol	ug/kg	710 U	3700 U	710 U
Pyrene	ug/kg	1300	350000	24000
1,2,4-Trichlorobenzene	ug/kg	710 U	3700 U	710 U
2,4,5-Trichlorophenol	ug/kg	710 U	3700 U	710 U
2,4,6-Trichlorophenol	ug/kg	710 U	3700 U	710 U





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

NOV 02 2009

MEMORANDUM

Subject: Modified Data Transmittal for ASR #4544  
Project ID: DNSTCORMO  
Project Description: Scott Tie Company, Inc. - Woodtreater facility  
(Reynolds, MO.) Inspection

From: Michael F. Davis, Chief *MF Davis*  
Chemical Analysis and Response Branch  
Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

Attached is the modified data transmittal for ASR #4544.

After review, verification and transmittal of the subject data, the Project Manager (Dedriel Newsome) requested that data be reported to the Method Detection Limit (MDL) instead of the Reporting Limits (RL) for all Semi-Volatile analytes. Analytes detected between the MDL and the RL were J-coded, analytes not detected were reported at the MDL with a UJ-code and analytes without an MDL determination were reported to the RL with a U-code.

In addition, the PM requested that sample 1 be reanalyzed and reported for TCLP Semi-Volatiles in Hazardous waste.

Please contact Margie St. Germain (ext. 5154) with any questions or concerns.

Attachment

United States Environmental Protection Agency  
Region 7  
901 N. 5th Street  
Kansas City, KS 66101

Date: NOV 02 2009

Subject: Transmittal of Sample Analysis Results for ASR #: 4544

Project ID: DNSTCORMO

Project Description: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.)  
Inspection

From: Michael F. Davis, Chief   
Chemical Analysis and Response Branch, Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

**Project Manager:** Dedriel Newsome**Org:** ENSV/ARCM**Phone:** 913-551-7049**Project ID:** DNSTCORMO**Project Desc:** Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection**Location:** Reynolds**State:** Missouri**Program:** RCRA Enforcement**Purpose:** Site Characterization**GPRA PRC:** 501E50C**Explanation of Codes, Units and Qualifiers used on this report****Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

\_\_\_ = Field Sample

mg/L = Milligrams per Liter

FD = Field Duplicate

mg/kg = Milligrams per Kilogram

**Data Qualifiers:** Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

K = The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.

O = Parameter not analyzed.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 4544

## Sample Information Summary

10/23/2009

Project ID: DNSTCORMO Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Waste	Missouri Tie - East catch vat tank for Treatment cylinder #1 (NE Door)		09/15/2009	09:35	09/15/2009	09:36	09/16/2009
1 - FD		Waste	Missouri Tie/Field Duplicate of sample 1		09/15/2009	09:35	09/15/2009	09:26	09/16/2009

Project ID: DNSTCORMO Project Desc Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

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**Analysis      Comments About Results For This Analysis**

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1 Semi-Volatile Organic Compounds in Hazardous Waste

**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.

**Method:** EPA Region 7 RLAB Method 3230.2F

**Samples:** 1-\_\_\_ 1-FD

**Comments:**

These data have been amended to correct the reporting limits, and report down to the method detection limits. Analytes detected between the MDL and the reporting limit were J coded. Analytes not detected were reported at the MDL with a UJ code. Analytes without an MDL determination were reported to the reporting limit with a U code. (Note MB is in ug/kg, ASR4454-1, 1-ld, and 1-fd are in mg/kg.)

KTJ added 29OCT09

**Laboratory Control Standards:**

These hazardous samples were prepared by dilution, gpc clean-up, and analyzed. As there was no extraction efficiency to monitor, there was no Laboratory Control Standard prepared. Note the gel permeation column check standard was used to qualify analyte recoveries post gpc and sample processing, and a Laboratory Duplicate was used to assess repeatability.

4-Nitrophenol was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

bis(2-Chloroisopropyl)ether was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the gel permeation control sample. The actual reporting limit for this analyte may be higher than the reported value.

1 TCLP Semi-Volatiles in Hazardous

**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.

**Method:** EPA Region 7 RLAB Method 3230.2F applied to TCLP extracts

**Samples:** 1-\_\_\_

**Comments:**

The original viscous liquid sample 4544-1 was visually determined to contain less than 5% solids. The TCLP sample data are reported as theoretical tumble values, based on data from Semivolatile Hazardous sample determinations. See attached worksheets for data conversions and regulatory limits.

The results for this TCLP analysis of sample were K-coded at the RCRA TCLP action level of the analytes. The analyses of the total analytes in these samples determined that the RCRA action level could not have been exceeded for any of the TCLP analytes.

ASR Number: 4544

RLAB Approved Analysis Comments

10/23/2009

Project ID: DNSTCORMO

Project Desc Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

Analysis

Comments About Results For This Analysis

The results for this TCLP analysis of sample were O-coded in cases where the RCRA action level was below that of the method reporting limit.

The sample was not assessed for Pyridine.

Analysis/ Analyte	Units	1-__	1-FD
<b>1 Semi-Volatile Organic Compounds in Hazardous Waste</b>			
Acenaphthene	mg/kg	15000	14000
Acenaphthylene	mg/kg	72 J	68 J
Anthracene	mg/kg	8600	8100
Benzo(a)anthracene	mg/kg	4200	3900
Benzo(a)pyrene	mg/kg	1900	1800
Benzo(b)fluoranthene	mg/kg	2200	2100
Benzo(g,h,i)perylene	mg/kg	230 J	300 J
Benzo(k)fluoranthene	mg/kg	770	680
Benzic acid	mg/kg	1000 UJ	960 UJ
Benzyl alcohol	mg/kg	240 UJ	220 UJ
bis(2-Chloroethoxy)methane	mg/kg	100 UJ	96 UJ
bis(2-Chloroethyl)ether	mg/kg	140 UJ	140 UJ
bis(2-Chloroisopropyl)ether	mg/kg	110 UJ	100 UJ
bis(2-Ethylhexyl)phthalate	mg/kg	100 UJ	96 UJ
4-Bromophenyl-phenylether	mg/kg	84 UJ	80 UJ
Butylbenzylphthalate	mg/kg	67 UJ	64 UJ
Carbazole	mg/kg	6500	6100
4-Chloro-3-methylphenol	mg/kg	340 UJ	320 UJ
4-Chloroaniline	mg/kg	530 UJ	500 UJ
2-Chloronaphthalene	mg/kg	110 UJ	100 UJ
2-Chlorophenol	mg/kg	130 UJ	120 UJ
4-Chlorophenyl-phenylether	mg/kg	110 UJ	110 UJ
Chrysene	mg/kg	4600	4500
Di-n-butylphthalate	mg/kg	92 UJ	88 UJ
Di-n-octylphthalate	mg/kg	160 UJ	150 UJ
Dibenz(a,h)anthracene	mg/kg	340 U	320 U
Dibenzofuran	mg/kg	10000	8800
1,2-Dichlorobenzene	mg/kg	110 UJ	100 UJ
1,3-Dichlorobenzene	mg/kg	160 UJ	150 UJ
1,4-Dichlorobenzene	mg/kg	170 UJ	160 UJ
3,3'-Dichlorobenzidine	mg/kg	760 UJ	720 UJ
2,4-Dichlorophenol	mg/kg	430 UJ	410 UJ
Diethylphthalate	mg/kg	200 J	180 J
2,4-Dimethylphenol	mg/kg	510	470
Dimethylphthalate	mg/kg	88 UJ	84 UJ
4,6-Dinitro-2-methylphenol	mg/kg	460 UJ	440 UJ
2,4-Dinitrophenol	mg/kg	1700 U	1600 U
2,4-Dinitrotoluene	mg/kg	190 UJ	180 UJ
2,6-Dinitrotoluene	mg/kg	80 UJ	80 UJ
Fluoranthene	mg/kg	21000	20000
Fluorene	mg/kg	15000	14000
Hexachlorobenzene	mg/kg	88 UJ	84 UJ
Hexachlorobutadiene	mg/kg	130 UJ	120 UJ
Hexachlorocyclopentadiene	mg/kg	180 UJ	170 UJ
Hexachloroethane	mg/kg	130 UJ	120 UJ

Project ID: DNSTCORMO

Project Desc: Scott Tie Company, Inc. - Woodtreater facility (Reynolds, MO.) Inspection

Analysis/ Analyte	Units	1-___	1-FD
Indeno(1,2,3-cd)pyrene	mg/kg	430	370
Isophorone	mg/kg	100 UJ	100 UJ
2-Methylnaphthalene	mg/kg	24000	22000
2-Methylphenol	mg/kg	110 UJ	100 UJ
4-Methylphenol	mg/kg	530 J	490 J
Naphthalene	mg/kg	26000	24000
2-Nitroaniline	mg/kg	710 UJ	680 UJ
3-Nitroaniline	mg/kg	670 UJ	640 UJ
4-Nitroaniline	mg/kg	1000 UJ	960 UJ
Nitrobenzene	mg/kg	140 UJ	130 UJ
2-Nitrophenol	mg/kg	140 UJ	130 UJ
4-Nitrophenol	mg/kg	1300 UJ	1200 UJ
N-nitroso-di-n-propylamine	mg/kg	290 UJ	280 UJ
N-nitrosodiphenylamine	mg/kg	76 J	72 UJ
Pentachlorophenol	mg/kg	410 UJ	390 UJ
Phenanthrene	mg/kg	46000	43000
Phenol	mg/kg	400	370
Pyrene	mg/kg	12000	12000
1,2,4-Trichlorobenzene	mg/kg	100 UJ	100 UJ
2,4,5-Trichlorophenol	mg/kg	370 UJ	360 UJ
2,4,6-Trichlorophenol	mg/kg	130 UJ	130 UJ
1 TCLP Semi-Volatiles in Hazardous			
1,4-Dichlorobenzene	mg/L	N/A O	
2,4-Dinitrotoluene	mg/L	N/A O	
Hexachlorobenzene	mg/L	N/A O	
Hexachlorobutadiene	mg/L	N/A O	
Hexachloroethane	mg/L	N/A O	
2-Methylphenol	mg/L	200 K	
3 and/or 4-Methylphenol	mg/L	200 K	
Nitrobenzene	mg/L	N/A O	
Pentachlorophenol	mg/L	100 K	
Pyridine	mg/L	N/A O	
2,4,5-Trichlorophenol	mg/L	400 K	
2,4,6-Trichlorophenol	mg/L	N/A O	



SCOTT TIE 3/25/04 AND 9/15/09 SAMPLING RESULTS COMPARISON TABLES

	3/25/04 #201/201FD Creosote	9/15/09 4544-1/4544 IFD Creosote	3/25/04 #5 Bkg Soil	3/25/04 #11/FD NW Soil	9/15/09 4545-2 NW Soil	3/25/04 #25W Soil	9/15/09 4545-1 / 4545-1FD SW Soil	3/25/04 #3 SE Soil	9/15/09 4545-3 SE Soil	3/25/04 #4 NE Soil	9/15/09 4545-4 NE Soil	9/15/09 4545-5 SE Soil 2 Fresh Drip	9/15/09 4545-6 NW Soil 2 Fresh Drip
1 Acenaphthene	39000/39000	15000/14000	.32U	13/14	.9U	1100	.69U/.69U	2900	1.5	20U	.71U	48	5.6
2 Acenaphthylene	800U/800U	721/683	.32U	8U/8U	.9U	20U	.69U/.69U	400U	0.73	20U	.71U	3.7U	.71U
3 Anthracene	6000U/6000U	8600/8100	.32U	11/10	.9U	390	.69U/.69U	930	4.1	20U	.71U	29	7.4
4 Benz(a)anthracene (U018)	9000/9100	4290/3900	.32U	9.9/10	.9U	480	.69U/.69U	990	19	20U	.71U	76	6.3
5 Benz(a)pyrene (U022)	3100/3200	1900/1800	.32U	3.5/3.4	1	180	.69U/.69U	400U	11	20U	.71U	43	3.6
6 Benz(b)fluoranthene	4800/5100	2200/2100	.32U	8.7/8.8	3.2	290	.94/1.0	570	21	20U	.71U	73	6.9
7 Benz(g,h,i)perylene	980U/960U	230U/300U	.32U	2.9/2.3	.9U	51	.69U/.69U	400U	2	20U	.71U	8.2	0.92
8 Benz(k)fluoranthene	1700/1800	770/680	.32U	3/2.8	0.95	100	.69U/.69U	400U	22	20U	.71U	22	1.9
9 bis(2-Ethylhexyl)phthalate	2000U/2000U	100U/96U	.8U	2U/2U	2.5	50U	.69U/.69U	1000U	.68U	50U	.71U	3.7U	.71U
10 Carbazole	6700/6600	6500/6100	.8U	4.6/4.0	.9U	100	.69U/.69U	100U	.68U	50U	.71U	3.7U	4.4
11 Chrysene (U050)	8100/8200	4600/4500	.32U	14/14	2	470	.81/.84	1100	21	24	1.1	93	9.6
12 Dibenz(a,h)anthracene	800U/800U	340U/320U	.32U	1.1/1.1	.9U	30	.69U/.69U	400U	0.97	20U	.71U	3.7U	.71U
13 Dibenzofuran	24000/25000	10000/8800	.32U	6.3/7.1	.9U	580	.69U/.69U	1900	1.5	20U	.71U	7.2	4.8
14 2,4-Dimethylphenol	2000U/2000U	510/470	.8U	2U/2U	.9U	50U	.69U/.69U	1000U	.68U	50U	.71U	3.7U	.71U
15 Fluoranthene (U120)	58000/59000	21000/20000	1.1	100/100	1.9	3200	.69U/.69U	7400	83	140	1.5	450	36
16 Fluorene	27000/28000	15000/14000	0.36	13/14	.9U	1100	.69U/.69U	3300	1.3	20U	.71U	24	10
17 Indeno(1,2,3-cd)pyrene	2300/2300	430/370	0.67	3.7/3.4	0.98	84	.69U/.69U	780	4.2	20U	.71U	15	1.4
18 2-Methylanthracene	37000/37000	24000/22000	.32U	2.9/3.3	.9U	20U	.69U/.69U	400U	.68U	20U	.71U	3.7U	.71U
19 4-Methylphenol	2000U/2000U	530U/490U	.8U	2U/2U	.9U	50U	.69U/.69U	1000U	.68U	50U	.71U	3.7U	.71U
20 Naphthalene (U165)	44000/44000	26000/24000	.32U	2.4/2.8	.9U	20	.69U/.69U	400U	1.41	20U	.71U	3.7U	.71U
21 Picenanthrene	85000/86000	46000/43000	1.6	35/35	1.5	4000	.71/.71	11000	5.4	33	1.1	58	58
22 Phenol	800U/800U	400/370	.32U	8U/8U	.9U	20U	.69U/.69U	400U	.68U	20U	.71U	3.7U	.71U
23 Pyrene	34000/35000	12000/12000	0.7	64/62	1.6	2100	.69U/.69U	4800	91	92	1.3	350	24

*D. Neumann  
11/15/09 RCH Sampling  
Inspector*

# QC CALCULATIONS

SAMPLE #	4544-1 (ppm)	4544-1FD (ppm)	REL STD DEV %	4545-1 (ppm)	4545-1FD (ppm)	REL STD DEV %
Acenaphthene	15000	14000	4.88	—	—	—
Anthracene	8600	8100	4.23	—	—	—
Benzo(a)anthracene	4200	3900	5.24	—	—	—
Benzo(a)pyrene	1900	1800	3.82	—	—	—
Benzo(b)fluoranthene	2200	2100	3.29	940	1000	4.374
Benzo(k)fluoranthene	770	680	8.78	—	—	—
Carbazole	6500	6100	4.49	—	—	—
Chrysene	4600	4500	1.55	810	840	2.571
Dibenzofuran	10000	8800	9.03	—	—	—
2,4-Dimethylphenol	510	470	5.77	—	—	—
Fluoranthene	21000	20000	3.45	—	—	—
Fluorene	15000	14000	4.88	—	—	—
Indeno(1,2,3-cd)pyrene	430	370	10.61	—	—	—
2-Methylnaphthalene	24000	22000	6.15	—	—	—
4-Methylphenol	530	490	5.55	—	—	—
Naphthalene	26000	24000	5.66	—	—	—
Phenanthrene	46000	43000	4.77	710	710	0.000
Phenol	400	370	5.51	—	—	—
Pyrene	12000	12000	0.00	—	—	—

9/15/09 R. M. Williams  
PCA & Sampling  
Birmingham

ATTACHMENT Page 1 of 1

PERCENT REL STD DEV =  $2(RANGE) / ((SORT(2))^2 (SUM))^2 * 100$

ATTACHMENT Page of

# PHOTO LOG

Facility Name / City: Scott Tie Co., Vulcan, MO and Missouri Tie & Timber, Reynolds, MO

Facility ID #: Non-notifier and MOR000501924

Date : September 15, 2009

Photographer: Dedriel Newsome

Type of Camera: Olympus Stylus 720 SW, Serial #: A93671407

Digital Recording Media: Flashcard

All digital photos were copied by: Dedriel Newsome on 10/24/09 *RSN*

All digital photos were copied to: CD-R

Original copy is stored in: CD-R. Digital photos were downloaded to CD-R all by Dedriel Newsome.

No changes were made in the original image files prior to storage on the CD-R. *RSN*

Report Photo #	Photographer	Date	Approx. Time	File Name (Pxxxxxx.jpg)	Description
1	Dedriel Newsome	09/15/09	9:23 AM	9150001	Missouri Tie & Timber - East catch vat tank for Treatment Cylinder #1 (northeast door). Sample #4544-1/4544-1FD.
2	Dedriel Newsome	09/15/09	9:23 AM	9150002	Missouri Tie & Timber - East catch vat tank for Treatment Cylinder #1 (northeast door). Close-up of photo #1. Sample #4544-1/4544-1FD.
3	Dedriel Newsome	09/15/09	11:19 AM	9150003	Scott Tie (facing E) - Soil on NE side of the facility. Sample #4545-4.
4	Dedriel Newsome	09/15/09	11:28 AM	9150004	Scott Tie (facing E) - Soil on SE side of the facility. Sample #4545-3.
5	Dedriel Newsome	09/15/09	11:36 AM	9150005	Scott Tie (facing E) - Soil on SE side of the facility. Sample #4545-5.
6	Dedriel Newsome	09/15/09	11:37 AM	9150006	Scott Tie (facing E) - Soil on SE side of the facility. Sample #4545-5.
7	Dedriel Newsome	09/15/09	11:44 AM	9150007	Scott Tie (facing E) - Soil on SE side of the facility after samples collected. Sample #4545-3 and #4545-5.
8	Dedriel Newsome	09/15/09	11:44 AM	9150008	Scott Tie (facing SE) - Soil on SE side of the facility after sample collected. Sample #4545-5.
9	Dedriel Newsome	09/15/09	11:47 AM	9150009	Scott Tie (facing NE) - Soil on NE side of the facility after sample collected. Sample #4545-4.
10	Dedriel Newsome	09/15/09	11:47 AM	9150010	Scott Tie (facing NE) - Soil on NE side of the facility after sample collected. Sample #4545-4. Close-up of photo 9.
11	Dedriel Newsome	09/15/09	11:53 AM	9150011	Scott Tie (facing W) - Soil on NW side of the facility. Sample #4545-2.
12	Dedriel Newsome	09/15/09	11:58 AM	9150012	Scott Tie (facing NW) - Soil on NW side of the facility after sample collected. Sample #4545-2.
13	Dedriel Newsome	09/15/09	11:59 AM	9150013	Scott Tie (facing W) - Soil on NW side of the facility. Sample #4545-2.

14	Dedriel Newsome	09/15/09	12:04 PM	9150014	Scott Tie (facing W) – Soil on NW side of the facility. Sample #4545-6.
15	Dedriel Newsome	09/15/09	12:04 PM	9150015	Scott Tie (facing NW) – Soil on NW side of the facility. Sample #4545-6.
16	Dedriel Newsome	09/15/09	12:09 PM	9150016	Scott Tie (facing NW) – Soil on NW side of the facility after sample collected. Sample #4545-6.
17	Dedriel Newsome	09/15/09	12:13 PM	9150017	Scott Tie (facing W) – Soil on SW side of the facility. Sample #4545-1/4545-1FD.
18	Dedriel Newsome	09/15/09	12:21 PM	9150018	Scott Tie (facing W) – Soil on SW side of the facility after samples collected. Sample #4545-1/4545-1FD.
19	Dedriel Newsome	09/15/09	12:22 PM	9150019	Scott Tie (facing N) – Overview of facility on W side of site.
20	Dedriel Newsome	09/15/09	12:22 PM	9150020	Scott Tie (facing S) – Overview of facility on far SW side of site.
21	Dedriel Newsome	09/15/09	12:37 PM	9150021	Scott Tie (facing N) – Overview of facility on E side of site.
22	Dedriel Newsome	09/15/09	12:37 PM	9150022	Scott Tie (facing S) – Overview of facility on far SE side of site.

Scott Tie and Missouri Tie &  
Timber Photos  
Vulcan, MO and Reynolds, MO  
9/15/09

Photos taken by Dedriel Newsome

Missouri Tie & Timber, Reynolds, MO and Scott Tie, Vulcan, MO 9/15/09



**Photo 1** – Missouri Tie & Timber – East catch vat tank for Treatment Cylinder #1 (northeast door). Sample #4544-1/4544-1FD.

D. Newsome *DN*



**Photo 2** – Missouri Tie & Timber – East catch vat tank for Treatment Cylinder #1 (northeast door). Close-up of photo #1. Sample #4544-1/4544-1FD.

D. Newsome *DN*



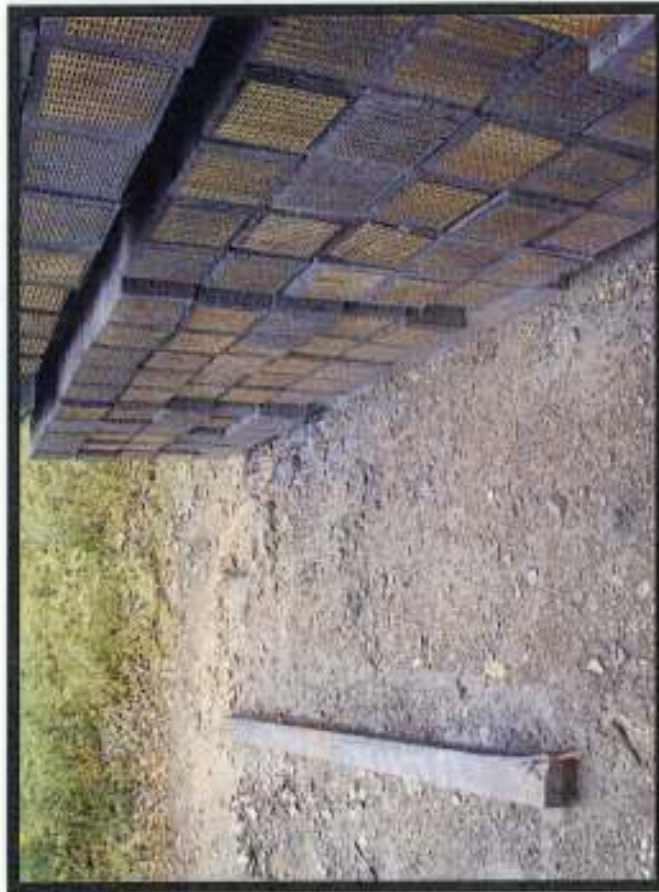
Missouri Tie & Timber, Reynolds, MO and Scott Tie, Vulcan, MO 9/15/09



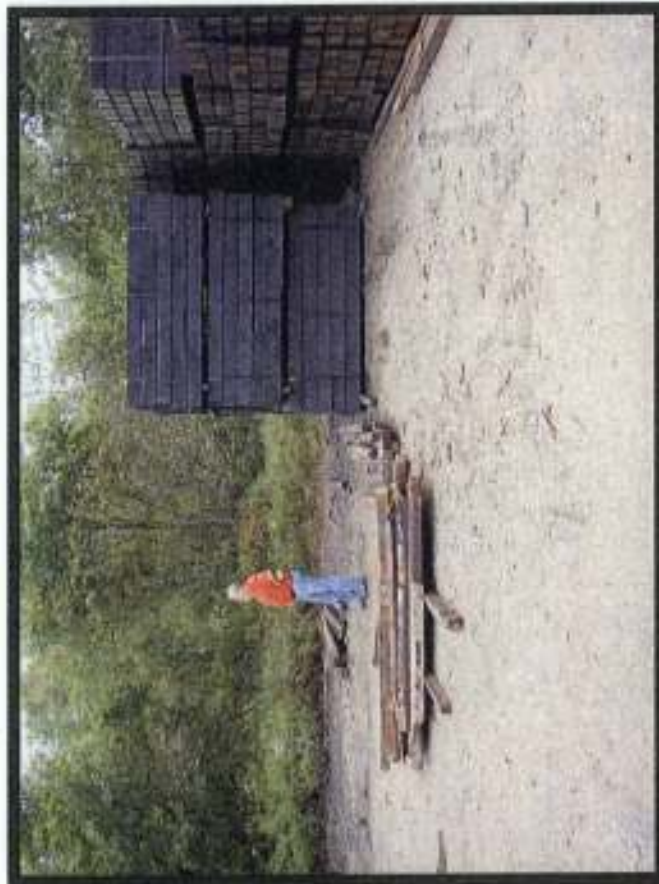
**Photo 3** – Scott Tie (facing E) – Soil on NE side of the facility. Sample #4545-4.  
D. Newsome *DN*



**Photo 4** – Scott Tie (facing E) – Soil on SE side of the facility. Sample #4545-3.  
D. Newsome *DN*



**Photo 5** – Scott Tie (facing E) – Soil on SE side of the facility. Sample #4545-5.  
D. Newsome



**Photo 6** – Scott Tie (facing E) – Soil on SE side of the facility. Sample #4545-5.  
D. Newsome





**Photo 15** – Scott Tie (facing NW) – Soil on NW side of the facility. Sample #4545-6.  
D. Newsome *DN*



**Photo 16** – Scott Tie (facing NW) – Soil on NW side of the facility after sample collected. Sample #4545-6.  
D. Newsome *DN*

Missouri Tie & Timber, Reynolds, MO and Scott Tie, Vulcan, MO 9/15/09



**Photo 17** – Scott Tie (facing W) – Soil on SW side of the facility. Sample #4545-1/4545-1FD.  
D. Newsome *DN*



**Photo 18** – Scott Tie (facing W) – Soil on SW side of the facility after samples collected. Sample #4545-1/4545-1FD.  
D. Newsome *DN*



Missouri Tie & Timber, Reynolds, MO and Scott Tie, Vulcan, MO 9/15/09



**Photo 19** – Scott Tie (facing N) – Overview of facility on W side of site.  
D. Newsome *[Signature]*



**Photo 20** – Scott Tie (facing S) – Overview of facility on far SW side of site.  
D. Newsome *[Signature]*



**Photo 21** – Scott Tie (facing N) – Overview of facility on E side of site.

D. Newsome *[Signature]*



**Photo 22** – Scott Tie (facing S) – Overview of facility on far SE side of site.

D. Newsome *[Signature]*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

May 18, 2004

Mr. Junior Flowers, Owner  
Missouri Tie and Timber  
Highway 72 West  
Reynolds, MO 63666

RECEIVED

MAY 24 2004

Hazardous Waste Program  
MO Dept. of Natural Resources

RE: Transmittal of Analytical Results  
Missouri Tie and Timber  
Highway 72 West  
Reynolds, MO 63666  
RCRA ID No. MOR000501924

Dear Mr. Flowers

Enclosed you will find copies of analytical results from the waste samples that were collected during a compliance sampling inspection at the referenced facility on March 25, 2004 by the U. S. Environmental Protection Agency.

If you have any questions regarding this information, please contact me at (913) 551-7049.

Sincerely,

Dedriel Newsome  
Environmental Engineer  
Environmental Services Division  
Air & RCRA Compliance Branch

Enclosures

cc: Kathy Flippin, MDNR  
Amy Baker, MDNR Southeast Regional Office

**United States Environmental Protection Agency  
Region 7  
901 N. 5th Street  
Kansas City, KS 66101**

**Date:** 03 MAY 2004

**Subject:** Transmittal of Sample Analysis Results for ASR #: 2322

Project ID: DNMTUPRR

Project Description: MO Tie/Scott Tie Woodtreating

**From:**   
Dale I. Bates, Director  
Regional Laboratory, Environmental Services Division

**To:** Dedriel Newsome  
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition memo for this ASR.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

ASR Number: 2322

## Sample Information Summary

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Solid	Scott Tie - Northwest soil sample		03/25/2004	14:30	03/25/2004	14:37	03/26/200
1 - FD		Solid	Scott Tie - Northwest soil/Field Duplicate of sample 1		03/25/2004	14:30	03/25/2004	14:37	03/26/200
2 -		Solid	Scott Tie - Southwest soil sample		03/25/2004	15:04	03/25/2004	15:07	03/26/200
3 -		Solid	Scott Tie - Southeast soil sample		03/25/2004	15:14	03/25/2004	15:19	03/26/200
4 -		Solid	Scott Tie - Northeast soil sample		03/25/2004	15:25	03/25/2004	15:30	03/26/200
5 -		Solid	Scott Tie - Background soil sample		03/25/2004	16:18	03/25/2004	16:22	03/26/200
101 -		Water	Scott Tie - North Puddle water sample		03/25/2004	13:57	03/25/2004	14:05	03/26/200
101 - FD		Water	Scott Tie - North Puddle/Field Duplicate of sample 101		03/25/2004	13:57	03/25/2004	14:05	03/26/200
102 -		Water	Scott Tie - South Puddle water sample		03/25/2004	14:08	03/25/2004	14:12	03/26/200
201 -		Waste	MO Tie - West catch vat tank for treatment cylinder #1 (NW door)		03/25/2004	11:42	03/25/2004	11:47	03/26/200
201 - FD		Waste	MO Tie - West catch vat tank/Field Duplicate of sample 201		03/25/2004	11:42	03/25/2004	11:47	03/26/200

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**Analysis      Comments About Results For This Analysis**

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For CCAL 04/26/04 the results for Benzo(g,h,i)perylene were biased high. Since this analyte was detected in samples 2322-201 and 2322-201-FD, the results are "J"-coded to indicate that the results may be biased high.

**1    Semi-Volatile Organic Compounds in Water****Lab:** Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3230.2C**Samples:** 101-\_\_    101-FD    102-\_\_**Comments:**

Reporting Limits are higher than Typical Reporting Limits as a reduced sample volume was extracted to reduce the effect of interferences.

For the Continuing Calibration sample the %D exceeded 30% for 2,4-Dinitrophenol (34.9%). Since the %D was >30% for 2,4-Dinitrophenol and the results were biased low, all data will be qualified. Since the analyte was not detected in samples 2322-101, 2322-101-FD, and 2322-102 the results were "UJ"-coded, indicating that the actual reporting limits may be higher than the value reported.

For sample 2322-950-LFB the recoveries for Benzoic Acid 17% (22 - 105%), 2,4,6-Trichlorophenol 69% (78 - 106%), 2,4-Nitrophenol 28% (30 - 123%), 4,6-Dinitro-2-methylphenol 37% (74 - 121%), and Pentachlorophenol 47% (86 - 115%) were below the lower control limit. Data for 2,4-Dinitrophenol has previously been qualified. Since the results for these other compounds were biased low, data for these analytes were "UJ"-coded for samples where the analyte was not detected, indicating that the reporting limit may be higher than the value reported. Samples 2322-101, 2322-101-FD, and 2322-102 were affected.

4,6-Dinitro-2-methylphenol, 4-Nitrophenol, and Pentachlorophenol had low recoveries for the matrix spike and matrix spike duplicate. 2,4,6-Trichlorophenol had a low recovery for the matrix spike duplicate only. Data for 4,6-Dinitrophenol, Pentachlorophenol, and 2,4,6-Trichlorophenol have already been qualified. Data for 4-Nitrophenol was "UJ"-coded indicating that the reporting limit may be higher than the value reported. Samples 2322-101, 2322-101-FD, and 2322-102 were affected.

4,6-Dinitro-2-methylphenol (52% - PCL 32%), Pentachlorophenol (72% - PCL 35%), 2,4,5-Trichlorophenol (34% - PCL 33%), and 2,4,6-Trichlorophenol (50% - PCL 33%) exceeded the Precision Control Limits (PCL) for the matrix spike and matrix spike duplicate. Data for 4,6-Dinitro-2-methylphenol, Pentachlorophenol, and 2,4,6-Trichlorophenol has previously been qualified. Data for 2,4,5-Trichlorophenol was "UJ"-coded indicating that the reporting limit was an estimate.



ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	1-__	1-FD	2-__	3-__
Hexachlorocyclopentadiene	ug/kg	800 U	800 U	20000 U	400000 U
Hexachloroethane	ug/kg	800 U	800 U	20000 U	400000 U
Indeno(1,2,3-cd)pyrene	ug/kg	3700	3400	84000	780000
Isophorone	ug/kg	800 U	800 U	20000 U	400000 U
2-Methylnaphthalene	ug/kg	2900	3300	20000 U	400000 U
2-Methylphenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Methylphenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
Naphthalene	ug/kg	2400	2800	20000	400000 U
2-Nitroaniline	ug/kg	2000 U	2000 U	50000 U	1000000 U
3-Nitroaniline	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Nitroaniline	ug/kg	4000 U	4000 U	100000 U	2000000 U
Nitrobenzene	ug/kg	800 U	800 U	20000 U	400000 U
2-Nitrophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Nitrophenol	ug/kg	4000 U	4000 U	100000 U	2000000 U
N-nitroso-di-n-propylamine	ug/kg	2000 U	2000 U	50000 U	1000000 U
N-nitrosodiphenylamine	ug/kg	800 U	800 U	20000 U	400000 U
Pentachlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
Phenanthrene	ug/kg	35000	35000	4000000	11000000
Phenol	ug/kg	800 U	800 U	20000 U	400000 U
Pyrene	ug/kg	64000	62000	2100000	4800000
1,2,4-Trichlorobenzene	ug/kg	800 U	800 U	20000 U	400000 U
2,4,5-Trichlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
2,4,6-Trichlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U

ASR Number: 2322  
Project ID: DNMTUPRR

RLAB Approved Sample Analysis Results  
Project Desc: MO Tie/Scott Tie Woodtreating

05/03/2004

Analysis/ Analyte	Units	4-__	5-__	101-__	101-FD
Hexachlorocyclopentadiene	ug/kg	20000 U	320 U		
Hexachloroethane	ug/kg	20000 U	320 U		
Indeno(1,2,3-cd)pyrene	ug/kg	20000 U	670		
Isophorone	ug/kg	20000 U	320 U		
2-Methylnaphthalene	ug/kg	20000 U	320 U		
2-Methylphenol	ug/kg	50000 U	800 U		
4-Methylphenol	ug/kg	50000 U	800 U		
Naphthalene	ug/kg	20000 U	320 U		
2-Nitroaniline	ug/kg	50000 U	800 U		
3-Nitroaniline	ug/kg	50000 U	800 U		
4-Nitroaniline	ug/kg	100000 U	1600 U		
Nitrobenzene	ug/kg	20000 U	320 U		
2-Nitrophenol	ug/kg	50000 U	800 U		
4-Nitrophenol	ug/kg	100000 U	1600 U		
N-nitroso-di-n-propylamine	ug/kg	50000 U	800 U		
N-nitrosodiphenylamine	ug/kg	20000 U	320 U		
Pentachlorophenol	ug/kg	50000 U	800 U		
Phenanthrene	ug/kg	33000	1600		
Phenol	ug/kg	20000 U	320 U		
Pyrene	ug/kg	92000	700		
1,2,4-Trichlorobenzene	ug/kg	20000 U	320 U		
2,4,5-Trichlorophenol	ug/kg	50000 U	800 U		
2,4,6-Trichlorophenol	ug/kg	50000 U	800 U		
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L			200	200
Acenaphthylene	ug/L			8.0 U	8.0 U
Anthracene	ug/L			39	32
Benzo(a)anthracene	ug/L			17	16
Benzo(a)pyrene	ug/L			8.0 U	8.0 U
Benzo(b)fluoranthene	ug/L			20	16
Benzo(g,h,i)perylene	ug/L			8.0 U	8.0 U
Benzo(k)fluoranthene	ug/L			8.0 U	8.0 U
Benzoic acid	ug/L			40 UJ	40 UJ
Benzyl alcohol	ug/L			20 U	20 U
bis(2-Chloroethoxy)methane	ug/L			8.0 U	8.0 U
bis(2-Chloroethyl)ether	ug/L			8.0 U	8.0 U
bis(2-Chloroisopropyl)ether	ug/L			8.0 U	8.0 U
bis(2-Ethylhexyl)phthalate	ug/L			20 U	20 U
4-Bromophenyl-phenylether	ug/L			8.0 U	8.0 U
Butylbenzylphthalate	ug/L			20 U	20 U
Carbazole	ug/L			36	36
4-Chloro-3-methylphenol	ug/L			20 U	20 U
4-Chloroaniline	ug/L			40 U	40 U
2-Chloronaphthalene	ug/L			8.0 U	8.0 U
2-Chlorophenol	ug/L			20 U	20 U

Analysis/ Analyte	Units	102-__	201-__	201-FD
<b>1 Semi-Volatile Organic Compounds in Hazardous Waste</b>				
Acenaphthene	mg/kg		39000	39000
Acenaphthylene	mg/kg		800 U	800 U
Anthracene	mg/kg		6000	6000
Benzo(a)anthracene	mg/kg		9000	9100
Benzo(a)pyrene	mg/kg		3100	3200
Benzo(b)fluoranthene	mg/kg		4800	5100
Benzo(g,h,i)perylene	mg/kg		980 J	960 J
Benzo(k)fluoranthene	mg/kg		1700	1800
Benzoic acid	mg/kg		4000 U	4000 U
Benzyl alcohol	mg/kg		2000 U	2000 U
bis(2-Chloroethoxy)methane	mg/kg		800 U	800 U
bis(2-Chloroethyl)ether	mg/kg		800 U	800 U
bis(2-Chloroisopropyl)ether	mg/kg		800 U	800 U
bis(2-Ethylhexyl)phthalate	mg/kg		2000 U	2000 U
4-Bromophenyl-phenylether	mg/kg		800 U	800 U
Butylbenzylphthalate	mg/kg		2000 U	2000 U
Carbazole	mg/kg		6700	6600
4-Chloro-3-methylphenol	mg/kg		2000 U	2000 U
4-Chloroaniline	mg/kg		4000	4000 U
2-Chloronaphthalene	mg/kg		800 U	800 U
2-Chlorophenol	mg/kg		2000 U	2000 U
4-Chlorophenyl-phenylether	mg/kg		800 U	800 U
Chrysene	mg/kg		8100	8200
Di-n-butylphthalate	mg/kg		2000 U	2000 U
Di-n-octylphthalate	mg/kg		2000 U	2000 U
Dibenz(a,h)anthracene	mg/kg		800 U	800 U
Dibenzofuran	mg/kg		24000	25000
1,2-Dichlorobenzene	mg/kg		800 U	800 U
1,3-Dichlorobenzene	mg/kg		800 U	800 U
1,4-Dichlorobenzene	mg/kg		800 U	800 U
3,3'-Dichlorobenzidine	mg/kg		4000 U	4000 U
2,4-Dichlorophenol	mg/kg		2000 U	2000 U
Diethylphthalate	mg/kg		800 U	800 U
2,4-Dimethylphenol	mg/kg		2000 U	2000 U
Dimethylphthalate	mg/kg		800 U	800 U
4,6-Dinitro-2-methylphenol	mg/kg		4000 U	4000 U
2,4-Dinitrophenol	mg/kg		4000 UJ	4000 UJ
2,4-Dinitrotoluene	mg/kg		800 U	800 U
2,6-Dinitrotoluene	mg/kg		800 U	800 U
Fluoranthene	mg/kg		58000	59000
Fluorene	mg/kg		27000	28000
Hexachlorobenzene	mg/kg		800 U	800 U
Hexachlorobutadiene	mg/kg		800 U	800 U
Hexachlorocyclopentadiene	mg/kg		800 U	800 U
Hexachloroethane	mg/kg		800 U	800 U

ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	102-__	201-__	201-FD
Di-n-butylphthalate	ug/L	20 U		
Di-n-octylphthalate	ug/L	20 U		
Dibenz(a,h)anthracene	ug/L	8.0 U		
Dibenzofuran	ug/L	8.0 U		
1,2-Dichlorobenzene	ug/L	8.0 U		
1,3-Dichlorobenzene	ug/L	8.0 U		
1,4-Dichlorobenzene	ug/L	8.0 U		
3,3'-Dichlorobenzidine	ug/L	40 U		
2,4-Dichlorophenol	ug/L	20 U		
Diethylphthalate	ug/L	8.0 U		
2,4-Dimethylphenol	ug/L	22		
Dimethylphthalate	ug/L	8.0 U		
4,6-Dinitro-2-methylphenol	ug/L	40 UJ		
2,4-Dinitrophenol	ug/L	40 UJ		
2,4-Dinitrotoluene	ug/L	8.0 U		
2,6-Dinitrotoluene	ug/L	8.0 U		
Fluoranthene	ug/L	120		
Fluorene	ug/L	16		
Hexachlorobenzene	ug/L	8.0 U		
Hexachlorobutadiene	ug/L	8.0 U		
Hexachlorocyclopentadiene	ug/L	8.0 U		
Hexachloroethane	ug/L	8.0 U		
Indeno(1,2,3-cd)pyrene	ug/L	15		
Isophorone	ug/L	8.0 U		
2-Methylnaphthalene	ug/L	8.0 U		
2-Methylphenol	ug/L	43		
4-Methylphenol	ug/L	20 U		
Naphthalene	ug/L	8.0 U		
2-Nitroaniline	ug/L	20 U		
3-Nitroaniline	ug/L	20 U		
4-Nitroaniline	ug/L	40 U		
Nitrobenzene	ug/L	8.0 U		
2-Nitrophenol	ug/L	20 U		
4-Nitrophenol	ug/L	40 UJ		
N-nitroso-di-n-propylamine	ug/L	20 U		
N-nitrosodiphenylamine	ug/L	8.0 U		
Pentachlorophenol	ug/L	20 UJ		
Phenanthrene	ug/L	8.0 U		
Phenol	ug/L	8.0 U		
Pyrene	ug/L	66		
1,2,4-Trichlorobenzene	ug/L	8.0 U		
2,4,5-Trichlorophenol	ug/L	20 UJ		
2,4,6-Trichlorophenol	ug/L	20 UJ		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

May 18, 2004

Mr. Junior Flowers, Owner  
Missouri Tie and Timber  
Highway 72 West  
Reynolds, MO 63666

RECEIVED

MAY 24 2004

Hazardous Waste Program  
MO Dept. of Natural Resources

RE: Transmittal of Analytical Results  
Missouri Tie and Timber  
Highway 72 West  
Reynolds, MO 63666  
RCRA ID No. MOR000501924

Dear Mr. Flowers

Enclosed you will find copies of analytical results from the waste samples that were collected during a compliance sampling inspection at the referenced facility on March 25, 2004 by the U. S. Environmental Protection Agency.

If you have any questions regarding this information, please contact me at (913) 551-7049.

Sincerely,

Dedriel Newsome  
Environmental Engineer  
Environmental Services Division  
Air & RCRA Compliance Branch

Enclosures

cc: Kathy Flippin, MDNR  
Amy Baker, MDNR Southeast Regional Office

United States Environmental Protection Agency  
Region 7  
901 N. 5th Street  
Kansas City, KS 66101

Date: 03 MAY 2004

Subject: Transmittal of Sample Analysis Results for ASR #: 2322

Project ID: DNMTUPRR

Project Description: MO Tie/Scott Tie Woodtreating

From:   
Dale I. Bates, Director  
Regional Laboratory, Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition memo for this ASR.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Dedriel Newsome

Org: ENSV/ARCM

Phone: 913-551-7049

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Location: Reynolds

State: Missouri

Program: RCRA Enforcement

Purpose: Site Characterization

**Explanation of Codes, Units and Qualifiers used on this report****Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

— = Field Sample

FD = Field Duplicate

% = Percent

mg/kg = Milligrams per Kilogram

ug/L = Micrograms per Liter

ug/kg = Micrograms per Kilogram

**Data Qualifiers:** Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank = Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 2322

## Sample Information Summary

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Solid	Scott Tie - Northwest soil sample		03/25/2004	14:30	03/25/2004	14:37	03/26/200
1 - FD		Solid	Scott Tie - Northwest soil/Field Duplicate of sample 1		03/25/2004	14:30	03/25/2004	14:37	03/26/200
2 -		Solid	Scott Tie - Southwest soil sample		03/25/2004	15:04	03/25/2004	15:07	03/26/200
3 -		Solid	Scott Tie - Southeast soil sample		03/25/2004	15:14	03/25/2004	15:19	03/26/200
4 -		Solid	Scott Tie - Northeast soil sample		03/25/2004	15:25	03/25/2004	15:30	03/26/200
5 -		Solid	Scott Tie - Background soil sample		03/25/2004	16:18	03/25/2004	16:22	03/26/200
101 -		Water	Scott Tie - North Puddle water sample		03/25/2004	13:57	03/25/2004	14:05	03/26/200
101 - FD		Water	Scott Tie - North Puddle/Field Duplicate of sample 101		03/25/2004	13:57	03/25/2004	14:05	03/26/200
102 -		Water	Scott Tie - South Puddle water sample		03/25/2004	14:08	03/25/2004	14:12	03/26/200
201 -		Waste	MO Tie - West catch vat tank for treatment cylinder #1 (NW door)		03/25/2004	11:42	03/25/2004	11:47	03/26/200
201 - FD		Waste	MO Tie - West catch vat tank/Field Duplicate of sample 201		03/25/2004	11:42	03/25/2004	11:47	03/26/200



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**Analysis      Comments About Results For This Analysis**

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**1    Percent Solid****Lab:** Region-7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3142.9C**Samples:** 1-\_\_      1-FD      2-\_\_      3-\_\_      4-\_\_      5-\_\_**Comments:**

(N/A)

**1    Semi-Volatile Organic Compounds in Soil****Lab:** Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3230.2C**Samples:** 1-\_\_      1-FD      2-\_\_      3-\_\_      4-\_\_      5-\_\_**Comments:**

Reporting Limits were higher than Typical Reporting Limits as dilutions were necessary due to high analyte concentrations, and also to reduce the effects of interferences. Also, samples were cleaned by Gel Permeation Chromatography, and this clean-up introduced another dilution factor.

For CCAL 04/23/04 the results for 2,4-Dinitrophenol were biased low so all data for this analyte will be qualified. Since the 2,4-Dinitrophenol was not detected in samples 2322-1, 2322-1-FD, 2322-2, 2322-4, and 2344-5, the results were "UJ"-coded, indicating that the actual reporting limits may be higher than the value reported.

**1    Semi-Volatile Organic Compounds in Hazardous Waste****Lab:** Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3230.2C**Samples:** 201-\_\_      201-FD**Comments:**

Reporting Limits were higher than Typical Reporting Limits as dilutions were necessary due to high analyte concentrations, and also to reduce the effects of interferences. Also, samples were cleaned by Gel Permeation Chromatography, and this clean-up introduced another dilution factor.

For CCAL 04/23/04 the results for 2,4-Dinitrophenol were biased low so all data for this analyte will be qualified. Since the 2,4-Dinitrophenol was not detected in samples 2322-201 and 2322-201-FD, the results were "UJ"-coded, indicating that the actual reporting limits may be higher than the value reported.

Project ID: DNMTUPRR Project Desc: MO Tie/Scott Tie Woodtreating

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**Analysis      Comments About Results For This Analysis**

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For CCAL 04/26/04 the results for Benzo(g,h,i)perylene were biased high. Since this analyte was detected in samples 2322-201 and 2322-201-FD, the results are "J"-coded to indicate that the results may be biased high.

**1    Semi-Volatile Organic Compounds in Water****Lab:** Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3230.2C**Samples:** 101-\_\_ 101-FD 102-\_\_**Comments:**

Reporting Limits are higher than Typical Reporting Limits as a reduced sample volume was extracted to reduce the effect of interferences.

For the Continuing Calibration sample the %D exceeded 30% for 2,4-Dinitrophenol (34.9%). Since the %D was >30% for 2,4-Dinitrophenol and the results were biased low, all data will be qualified. Since the analyte was not detected in samples 2322-101, 2322-101-FD, and 2322-102 the results were "UJ"-coded, indicating that the actual reporting limits may be higher than the value reported.

For sample 2322-950-LFB the recoveries for Benzoic Acid 17% (22 - 105%), 2,4,6-Trichlorophenol 69% (78 - 106%), 2,4-Nitrophenol 28% (30 - 123%), 4,6-Dinitro-2-methylphenol 37% (74 - 121%), and Pentachlorophenol 47% (86 - 115%) were below the lower control limit. Data for 2,4-Dinitrophenol has previously been qualified. Since the results for these other compounds were biased low, data for these analytes were "UJ"-coded for samples where the analyte was not detected, indicating that the reporting limit may be higher than the value reported. Samples 2322-101, 2322-101-FD, and 2322-102 were affected.

4,6-Dinitro-2-methylphenol, 4-Nitrophenol, and Pentachlorophenol had low recoveries for the matrix spike and matrix spike duplicate. 2,4,6-Trichlorophenol had a low recovery for the matrix spike duplicate only. Data for 4,6-Dinitrophenol, Pentachlorophenol, and 2,4,6-Trichlorophenol have already been qualified. Data for 4-Nitrophenol was "UJ"-coded indicating that the reporting limit may be higher than the value reported. Samples 2322-101, 2322-101-FD, and 2322-102 were affected.

4,6-Dinitro-2-methylphenol (52% - PCL 32%), Pentachlorophenol (72% - PCL 35%), 2,4,5-Trichlorophenol (34% - PCL 33%), and 2,4,6-Trichlorophenol (50% - PCL 33%) exceeded the Precision Control Limits (PCL) for the matrix spike and matrix spike duplicate. Data for 4,6-Dinitro-2-methylphenol, Pentachlorophenol, and 2,4,6-Trichlorophenol has previously been qualified. Data for 2,4,5-Trichlorophenol was "UJ"-coded indicating that the reporting limit was an estimate.

ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie, Woodtreating

Analysis/ Analyte	Units	1-__	1-FD	2-__	3-__
1 Percent Solid					
Solids, percent	%	87	88	86	86
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	13000	14000	1100000	2900000
Acenaphthylene	ug/kg	800 U	800 U	20000 U	400000 U
Anthracene	ug/kg	11000	10000	390000	930000
Benzo(a)anthracene	ug/kg	9900	10000	480000	990000
Benzo(a)pyrene	ug/kg	3500	3400	180000	400000 U
Benzo(b)fluoranthene	ug/kg	8700	8800	290000	570000
Benzo(g,h,i)perylene	ug/kg	2900	2300	51000	400000 U
Benzo(k)fluoranthene	ug/kg	3000	2800	100000	400000 U
Benzoic acid	ug/kg	4000 U	4000 U	100000 U	2000000 U
Benzyl alcohol	ug/kg	2000 U	2000 U	50000 U	1000000 U
bis(2-Chloroethoxy)methane	ug/kg	800 U	800 U	20000 U	400000 U
bis(2-Chloroethyl)ether	ug/kg	800 U	800 U	20000 U	400000 U
bis(2-Chloroisopropyl)ether	ug/kg	800 U	800 U	20000 U	400000 U
bis(2-Ethylhexyl)phthalate	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Bromophenyl-phenylether	ug/kg	800 U	800 U	20000 U	400000 U
Butylbenzylphthalate	ug/kg	2000 U	2000 U	50000 U	1000000 U
Carbazole	ug/kg	4600	4000	100000	1000000 U
4-Chloro-3-methylphenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Chloroaniline	ug/kg	4000 U	4000 U	100000 U	2000000 U
2-Chloronaphthalene	ug/kg	800 U	800 U	20000 U	400000 U
2-Chlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Chlorophenyl-phenylether	ug/kg	800 U	800 U	20000 U	400000 U
Chrysene	ug/kg	14000	14000	470000	1100000
Di-n-butylphthalate	ug/kg	2000 U	2000 U	50000 U	1000000 U
Di-n-octylphthalate	ug/kg	2000 U	2000 U	50000 U	1000000 U
Dibenz(a,h)anthracene	ug/kg	1100	1100	30000	400000 U
Dibenzofuran	ug/kg	6300	7100	580000	1900000
1,2-Dichlorobenzene	ug/kg	800 U	800 U	20000 U	400000 U
1,3-Dichlorobenzene	ug/kg	800 U	800 U	20000 U	400000 U
1,4-Dichlorobenzene	ug/kg	800 U	800 U	20000 U	400000 U
3,3'-Dichlorobenzidine	ug/kg	4000 U	4000 U	100000 U	2000000 U
2,4-Dichlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
Diethylphthalate	ug/kg	800 U	800 U	20000 U	400000 U
2,4-Dimethylphenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
Dimethylphthalate	ug/kg	800 U	800 U	20000 U	400000 U
4,6-Dinitro-2-methylphenol	ug/kg	4000 U	4000 U	100000 U	2000000 U
2,4-Dinitrophenol	ug/kg	4000 U	4000 U	100000 U	2000000 U
2,4-Dinitrotoluene	ug/kg	800 U	800 U	20000 U	400000 U
2,6-Dinitrotoluene	ug/kg	800 U	800 U	20000 U	400000 U
Fluoranthene	ug/kg	100000	100000	3200000	7400000
Fluorene	ug/kg	13000	14000	1100000	3300000
Hexachlorobenzene	ug/kg	800 U	800 U	20000 U	400000 U
Hexachlorobutadiene	ug/kg	800 U	800 U	20000 U	400000 U

ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	1-__	1-FD	2-__	3-__
Hexachlorocyclopentadiene	ug/kg	800 U	800 U	20000 U	400000 U
Hexachloroethane	ug/kg	800 U	800 U	20000 U	400000 U
Indeno(1,2,3-cd)pyrene	ug/kg	3700	3400	84000	780000
Isophorone	ug/kg	800 U	800 U	20000 U	400000 U
2-Methylnaphthalene	ug/kg	2900	3300	20000 U	400000 U
2-Methylphenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Methylphenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
Naphthalene	ug/kg	2400	2800	20000	400000 U
2-Nitroaniline	ug/kg	2000 U	2000 U	50000 U	1000000 U
3-Nitroaniline	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Nitroaniline	ug/kg	4000 U	4000 U	100000 U	2000000 U
Nitrobenzene	ug/kg	800 U	800 U	20000 U	400000 U
2-Nitrophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
4-Nitrophenol	ug/kg	4000 U	4000 U	100000 U	2000000 U
N-nitroso-di-n-propylamine	ug/kg	2000 U	2000 U	50000 U	1000000 U
N-nitrosodiphenylamine	ug/kg	800 U	800 U	20000 U	400000 U
Pentachlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
Phenanthrene	ug/kg	35000	35000	4000000	11000000
Phenol	ug/kg	800 U	800 U	20000 U	400000 U
Pyrene	ug/kg	64000	62000	2100000	4800000
1,2,4-Trichlorobenzene	ug/kg	800 U	800 U	20000 U	400000 U
2,4,5-Trichlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U
2,4,6-Trichlorophenol	ug/kg	2000 U	2000 U	50000 U	1000000 U

ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	4-__	5-__	101-__	101-FD
1 Percent Solid					
Solids, percent	%	77	76		
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	20000 U	320 U		
Acenaphthylene	ug/kg	20000 U	320 U		
Anthracene	ug/kg	20000 U	320 U		
Benzo(a)anthracene	ug/kg	20000 U	320 U		
Benzo(a)pyrene	ug/kg	20000 U	320 U		
Benzo(b)fluoranthene	ug/kg	20000 U	320 U		
Benzo(g,h,i)perylene	ug/kg	20000 U	320 U		
Benzo(k)fluoranthene	ug/kg	20000 U	320 U		
Benzoic acid	ug/kg	100000 U	1600 U		
Benzyl alcohol	ug/kg	50000 U	800 U		
bis(2-Chloroethoxy)methane	ug/kg	20000 U	320 U		
bis(2-Chloroethyl)ether	ug/kg	20000 U	320 U		
bis(2-Chloroisopropyl)ether	ug/kg	20000 U	320 U		
bis(2-Ethylhexyl)phthalate	ug/kg	50000 U	800 U		
4-Bromophenyl-phenylether	ug/kg	20000 U	320 U		
Butylbenzylphthalate	ug/kg	50000 U	800 U		
Carbazole	ug/kg	50000 U	800 U		
4-Chloro-3-methylphenol	ug/kg	50000 U	800 U		
4-Chloroaniline	ug/kg	100000 U	1600 U		
2-Chloronaphthalene	ug/kg	20000 U	320 U		
2-Chlorophenol	ug/kg	50000 U	800 U		
4-Chlorophenyl-phenylether	ug/kg	20000 U	320 U		
Chrysene	ug/kg	24000	320 U		
Di-n-butylphthalate	ug/kg	50000 U	800 U		
Di-n-octylphthalate	ug/kg	50000 U	800 U		
Dibenz(a,h)anthracene	ug/kg	20000 U	320 U		
Dibenzofuran	ug/kg	20000 U	320 U		
1,2-Dichlorobenzene	ug/kg	20000 U	320 U		
1,3-Dichlorobenzene	ug/kg	20000 U	320 U		
1,4-Dichlorobenzene	ug/kg	20000 U	320 U		
3,3'-Dichlorobenzidine	ug/kg	100000 U	1600 U		
2,4-Dichlorophenol	ug/kg	50000 U	800 U		
Diethylphthalate	ug/kg	20000 U	320 U		
2,4-Dimethylphenol	ug/kg	50000 U	800 U		
Dimethylphthalate	ug/kg	20000 U	320 U		
4,6-Dinitro-2-methylphenol	ug/kg	100000 U	1600 U		
2,4-Dinitrophenol	ug/kg	100000 U	1600 U		
2,4-Dinitrotoluene	ug/kg	20000 U	320 U		
2,6-Dinitrotoluene	ug/kg	20000 U	320 U		
Fluoranthene	ug/kg	140000	1100		
Fluorene	ug/kg	20000 U	360		
Hexachlorobenzene	ug/kg	20000 U	320 U		
Hexachlorobutadiene	ug/kg	20000 U	320 U		

ASR Number: 2322  
Project ID: DNMTUPRR

RLAB Approved Sample Analysis Results  
Project Desc: MO Tie/Scott Tie Woodtreating

05/03/2004

Analysis/ Analyte.	Units	4-__	5-__	101-__	101-FD
Hexachlorocyclopentadiene	ug/kg	20000 U	320 U		
Hexachloroethane	ug/kg	20000 U	320 U		
Indeno(1,2,3-cd)pyrene	ug/kg	20000 U	670		
Isophorone	ug/kg	20000 U	320 U		
2-Methylnaphthalene	ug/kg	20000 U	320 U		
2-Methylphenol	ug/kg	50000 U	800 U		
4-Methylphenol	ug/kg	50000 U	800 U		
Naphthalene	ug/kg	20000 U	320 U		
2-Nitroaniline	ug/kg	50000 U	800 U		
3-Nitroaniline	ug/kg	50000 U	800 U		
4-Nitroaniline	ug/kg	100000 U	1600 U		
Nitrobenzene	ug/kg	20000 U	320 U		
2-Nitrophenol	ug/kg	50000 U	800 U		
4-Nitrophenol	ug/kg	100000 U	1600 U		
N-nitroso-di-n-propylamine	ug/kg	50000 U	800 U		
N-nitrosodiphenylamine	ug/kg	20000 U	320 U		
Pentachlorophenol	ug/kg	50000 U	800 U		
Phenanthrene	ug/kg	33000	1600		
Phenol	ug/kg	20000 U	320 U		
Pyrene	ug/kg	92000	700		
1,2,4-Trichlorobenzene	ug/kg	20000 U	320 U		
2,4,5-Trichlorophenol	ug/kg	50000 U	800 U		
2,4,6-Trichlorophenol	ug/kg	50000 U	800 U		
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L			200	200
Acenaphthylene	ug/L			8.0 U	8.0 U
Anthracene	ug/L			39	32
Benzo(a)anthracene	ug/L			17	16
Benzo(a)pyrene	ug/L			8.0 U	8.0 U
Benzo(b)fluoranthene	ug/L			20	16
Benzo(g,h,i)perylene	ug/L			8.0 U	8.0 U
Benzo(k)fluoranthene	ug/L			8.0 U	8.0 U
Benzoic acid	ug/L			40 UJ	40 UJ
Benzyl alcohol	ug/L			20 U	20 U
bis(2-Chloroethoxy)methane	ug/L			8.0 U	8.0 U
bis(2-Chloroethyl)ether	ug/L			8.0 U	8.0 U
bis(2-Chloroisopropyl)ether	ug/L			8.0 U	8.0 U
bis(2-Ethylhexyl)phthalate	ug/L			20 U	20 U
4-Bromophenyl-phenylether	ug/L			8.0 U	8.0 U
Butylbenzylphthalate	ug/L			20 U	20 U
Carbazole	ug/L			36	36
4-Chloro-3-methylphenol	ug/L			20 U	20 U
4-Chloroaniline	ug/L			40 U	40 U
2-Chloronaphthalene	ug/L			8.0 U	8.0 U
2-Chlorophenol	ug/L			20 U	20 U

ASR-Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	4-__	5-__	101-__	101-FD
4-Chlorophenyl-phenylether	ug/L			8.0 U	8.0 U
Chrysene	ug/L			29	23
Di-n-butylphthalate	ug/L			20 U	20 U
Di-n-octylphthalate	ug/L			20 U	20 U
Dibenz(a,h)anthracene	ug/L			8.0 U	8.0 U
Dibenzofuran	ug/L			92	89
1,2-Dichlorobenzene	ug/L			8.0 U	8.0 U
1,3-Dichlorobenzene	ug/L			8.0 U	8.0 U
1,4-Dichlorobenzene	ug/L			8.0 U	8.0 U
3,3'-Dichlorobenzidine	ug/L			40 U	40 U
2,4-Dichlorophenol	ug/L			20 U	20 U
Diethylphthalate	ug/L			8.0 U	8.0 U
2,4-Dimethylphenol	ug/L			48	49
Dimethylphthalate	ug/L			8.0 U	8.0 U
4,6-Dinitro-2-methylphenol	ug/L			40 UJ	40 UJ
2,4-Dinitrophenol	ug/L			40 UJ	40 UJ
2,4-Dinitrotoluene	ug/L			8.0 U	8.0 U
2,6-Dinitrotoluene	ug/L			8.0 U	8.0 U
Fluoranthene	ug/L			210	180
Fluorene	ug/L			110	100
Hexachlorobenzene	ug/L			8.0 U	8.0 U
Hexachlorobutadiene	ug/L			8.0 U	8.0 U
Hexachlorocyclopentadiene	ug/L			8.0 U	8.0 U
Hexachloroethane	ug/L			8.0 U	8.0 U
Indeno(1,2,3-cd)pyrene	ug/L			16	15
Isophorone	ug/L			8.0 U	8.0 U
2-Methylnaphthalene	ug/L			71	69
2-Methylphenol	ug/L			84	90
4-Methylphenol	ug/L			120	120
Naphthalene	ug/L			130	130
2-Nitroaniline	ug/L			20 U	20 U
3-Nitroaniline	ug/L			20 U	20 U
4-Nitroaniline	ug/L			40 U	40 U
Nitrobenzene	ug/L			8.0 U	8.0 U
2-Nitrophenol	ug/L			20 U	20 U
4-Nitrophenol	ug/L			40 UJ	40 UJ
N-nitroso-di-n-propylamine	ug/L			20 U	20 U
N-nitrosodiphenylamine	ug/L			8.0 U	8.0 U
Pentachlorophenol	ug/L			20 UJ	20 UJ
Phenanthrene	ug/L			130	120
Phenol	ug/L			190	180
Pyrene	ug/L			120	110
1,2,4-Trichlorobenzene	ug/L			8.0 U	8.0 U
2,4,5-Trichlorophenol	ug/L			20 UJ	20 UJ
2,4,6-Trichlorophenol	ug/L			20 UJ	20 UJ

Analysis/ Analyte	Units	102-__	201-__	201-FD
1 Semi-Volatile Organic Compounds in Hazardous Waste				
Acenaphthene	mg/kg		39000	39000
Acenaphthylene	mg/kg		800 U	800 U
Anthracene	mg/kg		6000	6000
Benzo(a)anthracene	mg/kg		9000	9100
Benzo(a)pyrene	mg/kg		3100	3200
Benzo(b)fluoranthene	mg/kg		4800	5100
Benzo(g,h,i)perylene	mg/kg		980 J	960 J
Benzo(k)fluoranthene	mg/kg		1700	1800
Benzoic acid	mg/kg		4000 U	4000 U
Benzyl alcohol	mg/kg		2000 U	2000 U
bis(2-Chloroethoxy)methane	mg/kg		800 U	800 U
bis(2-Chloroethyl)ether	mg/kg		800 U	800 U
bis(2-Chloroisopropyl)ether	mg/kg		800 U	800 U
bis(2-Ethylhexyl)phthalate	mg/kg		2000 U	2000 U
4-Bromophenyl-phenylether	mg/kg		800 U	800 U
Butylbenzylphthalate	mg/kg		2000 U	2000 U
Carbazole	mg/kg		6700	6600
4-Chloro-3-methylphenol	mg/kg		2000 U	2000 U
4-Chloroaniline	mg/kg		4000	4000 U
2-Chloronaphthalene	mg/kg		800 U	800 U
2-Chlorophenol	mg/kg		2000 U	2000 U
4-Chlorophenyl-phenylether	mg/kg		800 U	800 U
Chrysene	mg/kg		8100	8200
Di-n-butylphthalate	mg/kg		2000 U	2000 U
Di-n-octylphthalate	mg/kg		2000 U	2000 U
Dibenz(a,h)anthracene	mg/kg		800 U	800 U
Dibenzofuran	mg/kg		24000	25000
1,2-Dichlorobenzene	mg/kg		800 U	800 U
1,3-Dichlorobenzene	mg/kg		800 U	800 U
1,4-Dichlorobenzene	mg/kg		800 U	800 U
3,3'-Dichlorobenzidine	mg/kg		4000 U	4000 U
2,4-Dichlorophenol	mg/kg		2000 U	2000 U
Diethylphthalate	mg/kg		800 U	800 U
2,4-Dimethylphenol	mg/kg		2000 U	2000 U
Dimethylphthalate	mg/kg		800 U	800 U
4,6-Dinitro-2-methylphenol	mg/kg		4000 U	4000 U
2,4-Dinitrophenol	mg/kg		4000 UJ	4000 UJ
2,4-Dinitrotoluene	mg/kg		800 U	800 U
2,6-Dinitrotoluene	mg/kg		800 U	800 U
Fluoranthene	mg/kg		58000	59000
Fluorene	mg/kg		27000	28000
Hexachlorobenzene	mg/kg		800 U	800 U
Hexachlorobutadiene	mg/kg		800 U	800 U
Hexachlorocyclopentadiene	mg/kg		800 U	800 U
Hexachloroethane	mg/kg		800 U	800 U



ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/02/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	102-__	201-__	201-FD
Indeno(1,2,3-cd)pyrene	mg/kg		2300	2300
Isophorone	mg/kg		800 U	800 U
2-Methylnaphthalene	mg/kg		37000	37000
2-Methylphenol	mg/kg		2000 U	2000 U
4-Methylphenol	mg/kg		2000 U	2000 U
Naphthalene	mg/kg		44000	43000
2-Nitroaniline	mg/kg		2000 U	2000 U
3-Nitroaniline	mg/kg		2000 U	2000 U
4-Nitroaniline	mg/kg		4000 U	4000 U
Nitrobenzene	mg/kg		800 U	800 U
2-Nitrophenol	mg/kg		2000 U	2000 U
4-Nitrophenol	mg/kg		4000 U	4000 U
N-nitroso-di-n-propylamine	mg/kg		2000 U	2000 U
N-nitrosodiphenylamine	mg/kg		800 U	800 U
Pentachlorophenol	mg/kg		2000 U	2000 U
Phenanthrene	mg/kg		85000	86000
Phenol	mg/kg		800 U	800 U
Pyrene	mg/kg		34000	35000
1,2,4-Trichlorobenzene	mg/kg		800 U	800 U
2,4,5-Trichlorophenol	mg/kg		2000 U	2000 U
2,4,6-Trichlorophenol	mg/kg		2000 U	2000 U

## 1 Semi-Volatile Organic Compounds in Water

Acenaphthene	ug/L	57
Acenaphthylene	ug/L	8.0 U
Anthracene	ug/L	13
Benzo(a)anthracene	ug/L	8.0 U
Benzo(a)pyrene	ug/L	8.0 U
Benzo(b)fluoranthene	ug/L	16
Benzo(g,h,i)perylene	ug/L	8.0 U
Benzo(k)fluoranthene	ug/L	8.0 U
Benzoic acid	ug/L	40 UJ
Benzyl alcohol	ug/L	20 U
bis(2-Chloroethoxy)methane	ug/L	8.0 U
bis(2-Chloroethyl)ether	ug/L	8.0 U
bis(2-Chloroisopropyl)ether	ug/L	8.0 U
bis(2-Ethylhexyl)phthalate	ug/L	20 U
4-Bromophenyl-phenylether	ug/L	8.0 U
Butylbenzylphthalate	ug/L	20 U
Carbazole	ug/L	20 U
4-Chloro-3-methylphenol	ug/L	20 U
4-Chloroaniline	ug/L	40 U
2-Chloronaphthalene	ug/L	8.0 U
2-Chlorophenol	ug/L	20 U
4-Chlorophenyl-phenylether	ug/L	8.0 U
Chrysene	ug/L	21

ASR Number: 2322

## RLAB Approved Sample Analysis Results

05/03/2004

Project ID: DNMTUPRR

Project Desc: MO Tie/Scott Tie Woodtreating

Analysis/ Analyte	Units	102-__	201-__	201-FD
Di-n-butylphthalate	ug/L	20 U		
Di-n-octylphthalate	ug/L	20 U		
Dibenz(a,h)anthracene	ug/L	8.0 U		
Dibenzofuran	ug/L	8.0 U		
1,2-Dichlorobenzene	ug/L	8.0 U		
1,3-Dichlorobenzene	ug/L	8.0 U		
1,4-Dichlorobenzene	ug/L	8.0 U		
3,3'-Dichlorobenzidine	ug/L	40 U		
2,4-Dichlorophenol	ug/L	20 U		
Diethylphthalate	ug/L	8.0 U		
2,4-Dimethylphenol	ug/L	22		
Dimethylphthalate	ug/L	8.0 U		
4,6-Dinitro-2-methylphenol	ug/L	40 UJ		
2,4-Dinitrophenol	ug/L	40 UJ		
2,4-Dinitrotoluene	ug/L	8.0 U		
2,6-Dinitrotoluene	ug/L	8.0 U		
Fluoranthene	ug/L	120		
Fluorene	ug/L	16		
Hexachlorobenzene	ug/L	8.0 U		
Hexachlorobutadiene	ug/L	8.0 U		
Hexachlorocyclopentadiene	ug/L	8.0 U		
Hexachloroethane	ug/L	8.0 U		
Indeno(1,2,3-cd)pyrene	ug/L	15		
Isophorone	ug/L	8.0 U		
2-Methylnaphthalene	ug/L	8.0 U		
2-Methylphenol	ug/L	43		
4-Methylphenol	ug/L	20 U		
Naphthalene	ug/L	8.0 U		
2-Nitroaniline	ug/L	20 U		
3-Nitroaniline	ug/L	20 U		
4-Nitroaniline	ug/L	40 U		
Nitrobenzene	ug/L	8.0 U		
2-Nitrophenol	ug/L	20 U		
4-Nitrophenol	ug/L	40 UJ		
N-nitroso-di-n-propylamine	ug/L	20 U		
N-nitrosodiphenylamine	ug/L	8.0 U		
Pentachlorophenol	ug/L	20 UJ		
Phenanthrene	ug/L	8.0 U		
Phenol	ug/L	8.0 U		
Pyrene	ug/L	66		
1,2,4-Trichlorobenzene	ug/L	8.0 U		
2,4,5-Trichlorophenol	ug/L	20 UJ		
2,4,6-Trichlorophenol	ug/L	20 UJ		

4. W. Ent



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

RECEIVED

June 6, 2001

JUN 14 2001

HAZARDOUS WASTE PROGRAM  
MISSOURI DEPARTMENT OF  
NATURAL RESOURCES

Junior Flowers  
Missouri Tie and Timber  
Highway 72 West  
Reynolds, MO 63666

Re: Transmittal of Analytical Results  
Missouri Tie and Timber  
RCRA ID No. Non-notifier

Dear Mr. Flowers:

Enclosed you will find copies of the analytical results from the waste, soil, drinking and surface water samples that were collected at the above-referenced facility on March 7, 2001, by the U.S. Environmental Protection Agency. In addition, I have enclosed a copy of Missouri Department of Natural Resources *Used Oil and Oil-Contaminated Waste* Technical Bulletin for your information.

If you have any questions regarding this information, please contact me at (913) 551-7049.

Sincerely,

*Dedriel Newsome*

Dedriel Newsome  
Environmental Engineer  
Air and RCRA Compliance Branch  
Environmental Services Division

Enclosure

cc: K. Flippin, MDNR (w/ encl)  
Gary Gaines, MDNR Southeast Regional Office

United States Environmental Protection Agency

Region 7 Laboratory  
25 Funston Road  
Kansas City, KS 66115


17.10.01  
MO. Tie & Timber  
Reynolds

Date: 4/6/2001

Subject: Transmittal of Sample Analysis Results for ASR #: 827

Activity Number: DLN14

Activity Description: Missouri Tie and Timber

From: Michael Thomas, Associate Laboratory Director   
Regional Laboratory, Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

This is the sample analysis results transmittal for the above-referenced Analytical Services Request (ASR). The data contained in this transmittal have been approved by the Regional Laboratory. This transmittal contains all of the sample analysis results for this ASR. The Regional Laboratory should be notified within 14 days if any changes are needed to the contents of this report. If you have any questions, comments or data changes, please contact the Laboratory Customer Service Department at 913-551-5295.

cc: Analytical Data File

ASR Number: 827

Summary of Activity Information

4/6/2001

Activity Leader: Newsome, Dedriel

Org: ENSV/ARCM

Phone: (913) 551-7049

Activity Number: DLN14

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Purpose: Enforcement

Explanation of Codes, Units and Qualifiers used on this report.

Sample QC Codes: QC Codes identify the type of sample for quality control

— = Field Sample  
FD = Field Duplicate

Units: Specific units in which results are reported.

Deg C = Degrees Celsius  
mg/kg = Milligrams per Kilogram  
mg/L = Milligrams per Liter  
SU = Standard Units (pH)  
ug/kg = Micrograms per Kilogram  
ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

K = Actual value of the sample is less than the value reported.

L = Actual value of the sample is greater than the value reported.

U = Not detected at or above the reportable level shown.

Activity Number: DLN14

ASR Number: 827

## Sample Information Summary

Activity Desc: Missouri Tie and Timber

4/6/2001

Sample Numbe	QC Code	Matrix	Location	External Sample No.	Start Date	Start Time	End Date	End Time	Receipt Date
100 -		Hazardous	Drip pad waste from drip pad collection system taken near South wall near RR tracks on West side		03/07/2001	13:45	03/07/2001	13:46	03/08/2001
101 -		Soil	T-Building wood storage area sample taken in drop areas		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
101 -	FD	Soil	T-Building wood storage area/Duplicate of sample 101		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
102 -		Soil	Background soil sample taken approx. 100 yds. South of office bldg.		03/07/2001	14:20	03/07/2001	14:25	03/08/2001
205 -		Water	Collection Pond water sample		03/07/2001	16:05	03/07/2001	16:18	03/08/2001
208 -		Water	Drinking water from on-site well near boiler		03/07/2001	15:50	03/07/2001	15:57	03/08/2001

Activity Number: DLN14

ASR Number: 827

RLAB Approved Analysis Comments

Activity Desc: Missouri Tie and Timber

4/6/2001

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Analysis	Comments About Results For This Analysis
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**TCLP Semi-Volatiles in Hazardous**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**TCLP Semi-Volatiles in Soil**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Metals Analysis of TCLP Metals in Soil by ICAP**

Slight chromium contamination was found in the laboratory method blank. Only samples containing this compound at a level greater than five times the contamination level of the blank are reported without being qualified. All samples that contained this compound but at a level less than five times the contamination in the blank have the result "U-coded" indicating the method reporting limit has been raised to the level found in the sample. Samples affected were 827-101 and 827-101FD.

**Total Semivolatiles of TCLP compounds in Hazardous Waste**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Semivolatiles of TCLP compounds in Solids**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

Activity Number: DLN14

ASR Number: 827

RLAB Approved Sample Analysis Results

Activity Desc: Missouri Tie and Timber

4/6/2001

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
<b>Flashpoint of Hazardous Samples</b>					
Flashpoint	Deg C	79	L		
<b>pH of Hazardous Sample</b>					
pH	SU	6.7			
<b>TCLP Metals in Haz. Waste</b>					
Arsenic	mg/L	0.025	U		
Barium	mg/L	0.08			
Cadmium	mg/L	0.005	U		
Chromium	mg/L	0.005	U		
Lead	mg/L	0.025	U		
Selenium	mg/L	0.05	U		
Silver	mg/L	0.005	U		
<b>TCLP Semi-Volatiles in Hazardous</b>					
1,4-Dichlorobenzene	mg/L	0.00064	U		
2,4-Dinitrotoluene	mg/L	0.00073	U		
Hexachlorobenzene	mg/L	0.0005	U		
Hexachlorobutadiene	mg/L	0.00059	U		
Hexachloroethane	mg/L	0.00071	U		
2-Methylphenol	mg/L	0.014	U		
4-Methylphenol	mg/L	0.18			
Nitrobenzene	mg/L	0.00075	U		
Pentachlorophenol	mg/L	0.0012	U		
Pyridine	mg/L	0.0021	U		
2,4,5-Trichlorophenol	mg/L	0.0017	U		
2,4,6-Trichlorophenol	mg/L	0.0017	U		
<b>Total Metals of TCLP in Hazardous Samples by ICAP</b>					
Arsenic	mg/kg	125	U		
Barium	mg/kg	50	U		
Cadmium	mg/kg	25	U		
Chromium	mg/kg	25	U		
Lead	mg/kg	125	U		
Selenium	mg/kg	250	U		
Silver	mg/kg	25	U		
<b>Total Semivolatiles of TCLP compounds in Hazardous Waste</b>					
1,4-Dichlorobenzene	mg/kg	11.8	U		
2,4-Dinitrotoluene	mg/kg	9.1	U		
Hexachlorobenzene	mg/kg	13.6	U		
Hexachlorobutadiene	mg/kg	10.9	U		
Hexachloroethane	mg/kg	15	U		
2-Methylphenol	mg/kg	43.1	U		
4-Methylphenol	mg/kg	35.2	U		
Nitrobenzene	mg/kg	12.9	U		
Pentachlorophenol	mg/kg	24.1	U		
Pyridine	mg/kg	198	U		
2,4,5-Trichlorophenol	mg/kg	21.7	U		
2,4,6-Trichlorophenol	mg/kg	21.1	U		
<b>TCLP Metals in Soil</b>					



Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
Arsenic	mg/L		5.0 K	5.0 K	
Barium	mg/L		100 K	100 K	
Cadmium	mg/L		1.0 K	1.0 K	
Chromium	mg/L		5.0 K	5.0 K	
Lead	mg/L		5.0 K	5.0 K	
Selenium	mg/L		1.0 K	1.0 K	
Silver	mg/L		5.0 K	5.0 K	
TCLP Semi-Volatiles in Soil					
1,4-Dichlorobenzene	mg/L		0.00064 U	0.00064 U	
2,4-Dinitrotoluene	mg/L		0.00073 U	0.00073 U	
Hexachlorobenzene	mg/L		0.0005 U	0.0005 U	
Hexachlorobutadiene	mg/L		0.00059 U	0.00059 U	
Hexachloroethane	mg/L		0.00071 U	0.00071 U	
2-Methylphenol	mg/L		0.0014 U	0.0014 U	
4-Methylphenol	mg/L		0.0013 U	0.0013 U	
Nitrobenzene	mg/L		0.00075 U	0.00075 U	
Pentachlorophenol	mg/L		0.0012 U	0.0012 U	
Pyridine	mg/L		0.0021 U	0.0021 U	
2,4,5-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
2,4,6-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
Total Metals Analysis of TCLP Metals in Soil by ICAP					
Arsenic	mg/kg		2.6 U	2.6 U	5.2
Barium	mg/kg		15	15.2	124
Cadmium	mg/kg		0.52 U	0.52 U	0.67 U
Chromium	mg/kg		5.5 U	4.2 U	11.4
Lead	mg/kg		3.1	6.1	27.6
Selenium	mg/kg		5.2 U	5.2 U	6.7 U
Silver	mg/kg		0.52 U	0.52 U	0.67 U
Total Semivolatiles of TCLP compounds in Solids					
1,4-Dichlorobenzene	ug/kg		200 U	200 U	26 U
2,4-Dinitrotoluene	ug/kg		160 U	160 U	20 U
Hexachlorobenzene	ug/kg		230 U	230 U	30 U
Hexachlorobutadiene	ug/kg		190 U	190 U	24 U
Hexachloroethane	ug/kg		260 U	260 U	33 U
2-Methylphenol	ug/kg		740 U	740 U	96 U
4-Methylphenol	ug/kg		610 U	610 U	78 U
Nitrobenzene	ug/kg		220 U	220 U	29 U
Pentachlorophenol	ug/kg		410 U	410 U	54 U
Pyridine	ug/kg		3400 U	3400 U	440 U
2,4,5-Trichlorophenol	ug/kg		370 U	370 U	48 U
2,4,6-Trichlorophenol	ug/kg		360 U	360 U	47 U

Activity Number: DLN14

ASR Number: 827

RLAB Approved Sample Analysis Results

Activity Desc: Missouri Tie and Timber

4/6/2001

Analysis / Analyte	Units	205-__	208-__
<b>Metals in Water by ICP</b>			
Aluminum	ug/L	10900	100 U
Antimony	ug/L	20 U	20 U
Arsenic	ug/L	25 U	25 U
Barium	ug/L	86.3	30
Beryllium	ug/L	1 U	1 U
Cadmium	ug/L	5 U	5 U
Calcium	mg/L	12.7	48.6
Chromium	ug/L	13.6	5.2
Cobalt	ug/L	5 U	5 U
Copper	ug/L	10 U	10 U
Iron	ug/L	8980	50 U
Lead	ug/L	25 U	25 U
Magnesium	mg/L	6.4	26.7
Manganese	ug/L	130	5 U
Molybdenum	ug/L	10 U	10 U
Nickel	ug/L	15 U	15 U
Potassium	mg/L	3.6	2 U
Selenium	ug/L	50 U	50 U
Silver	ug/L	5 U	5 U
Sodium	mg/L	5.4	3.2
Thallium	ug/L	30 U	30 U
Titanium	ug/L	139	5 U
Vanadium	ug/L	23.8	5 U
Zinc	ug/L	22.9	72
<b>pH of Water</b>			
pH	SU	7.2	7.5
<b>Semi-Volatile Organic Compounds in Water</b>			
Acenaphthene	ug/L	0.16 U	0.16 U
Acenaphthylene	ug/L	0.2 U	0.2 U
Anthracene	ug/L	0.14 U	0.14 U
Benzo(a)anthracene	ug/L	0.099 U	0.099 U
Benzo(a)pyrene	ug/L	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/L	0.13 U	0.13 U
Benzo(g,h,i)perylene	ug/L	0.11 U	0.11 U
Benzo(k)fluoranthene	ug/L	0.12 U	0.12 U
Benzoic acid	ug/L	1.3 U	1.3 U
Benzyl alcohol	ug/L	0.96 U	0.96 U
bis(2-Chloroethoxy)methane	ug/L	0.32 U	0.32 U
bis(2-Chloroethyl)ether	ug/L	0.4 U	0.4 U
bis(2-Chloroisopropyl)ether	ug/L	0.33 U	0.33 U
bis(2-Ethylhexyl)phthalate	ug/L	0.83 U	0.83 U
4-Bromophenyl-phenylether	ug/L	0.35 U	0.35 U
Butylbenzylphthalate	ug/L	0.94 U	0.94 U
Carbazole	ug/L	2 U	2 U
4-Chloro-3-methylphenol	ug/L	1.2 U	1.2 U
4-Chloroaniline	ug/L	1.2 U	1.2 U
2-Chloronaphthalene	ug/L	0.69 U	0.69 U
2-Chlorophenol	ug/L	1.3 U	1.3 U

Analysis / Analyte	Units	205-__	208-__
4-Chlorophenyl-phenylether	ug/L	0.28 U	0.28 U
Chrysene	ug/L	0.11 U	0.11 U
Di-n-butylphthalate	ug/L	0.31 U	0.31 U
Di-n-octylphthalate	ug/L	0.31 U	0.31 U
Dibenz(a,h)anthracene	ug/L	0.13 U	0.13 U
Dibenzofuran	ug/L	0.6 U	0.6 U
1,2-Dichlorobenzene	ug/L	0.86 U	0.86 U
1,3-Dichlorobenzene	ug/L	0.54 U	0.54 U
1,4-Dichlorobenzene	ug/L	0.64 U	0.64 U
3,3'-Dichlorobenzidine	ug/L	1.4 U	1.4 U
2,4-Dichlorophenol	ug/L	1.2 U	1.2 U
Diethylphthalate	ug/L	0.3 U	0.3 U
2,4-Dimethylphenol	ug/L	1.5 U	1.5 U
Dimethylphthalate	ug/L	0.23 U	0.23 U
4,6-Dinitro-2-methylphenol	ug/L	2 U	2 U
2,4-Dinitrophenol	ug/L	2.4 U	2.4 U
2,4-Dinitrotoluene	ug/L	0.73 U	0.73 U
2,6-Dinitrotoluene	ug/L	0.89 U	0.89 U
Fluoranthene	ug/L	1.3	0.12 U
Fluorene	ug/L	0.17 U	0.17 U
Hexachlorobenzene	ug/L	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.59 U	0.59 U
Hexachlorocyclopentadiene	ug/L	0.6 U	0.6 U
Hexachloroethane	ug/L	0.71 U	0.71 U
Indeno(1,2,3-cd)pyrene	ug/L	0.15 U	0.15 U
Isophorone	ug/L	0.81 U	0.81 U
2-Methylnaphthalene	ug/L	0.72 U	0.72 U
2-Methylphenol	ug/L	1.4 U	1.4 U
4-Methylphenol	ug/L	1.3 U	1.3 U
Naphthalene	ug/L	0.18 U	0.18 U
2-Nitroaniline	ug/L	0.78 U	0.78 U
3-Nitroaniline	ug/L	0.53 U	0.53 U
4-Nitroaniline	ug/L	0.86 U	0.86 U
Nitrobenzene	ug/L	0.75 U	0.75 U
2-Nitrophenol	ug/L	1.3 U	1.3 U
4-Nitrophenol	ug/L	1.4 U	1.4 U
N-nitroso-di-n-propylamine	ug/L	0.41 U	0.41 U
N-nitrosodiphenylamine	ug/L	0.33 U	0.33 U
Pentachlorophenol	ug/L	1.2 U	1.2 U
Phenanthrene	ug/L	0.11 U	0.11 U
Phenol	ug/L	1.1 U	1.1 U
Pyrene	ug/L	0.092 U	0.092 U
1,2,4-Trichlorobenzene	ug/L	0.7 U	0.7 U
2,4,5-Trichlorophenol	ug/L	1.7 U	1.7 U
2,4,6-Trichlorophenol	ug/L	1.7 U	1.7 U

A.W. Ent



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL SERVICES DIVISION

REGION 7

25 FUNSTON ROAD

KANSAS CITY, KANSAS 66115

RECEIVED

JUN 14 2001

HAZARDOUS WASTE PROGRAM  
MISSOURI DEPARTMENT OF  
NATURAL RESOURCES

Date: MAY 24 2001

MEMORANDUM

SUBJECT: Data Transmittal for ASR #: 827

Site Description: Missouri Fire and Timber

FROM: <sup>for</sup> Dale Bates, Program Manager M. Simmons  
Regional Laboratory, Environmental Services Division

TO: Deedric Newsome  
ENSU / ARCH

Attached is the data transmittal for the above referenced site. This is a Modified Data Transmittal; these data are modified and differ from data previously transmitted. If you have any questions or comments, please contact Dee Simmons at 551-5129.

Attachment

cc: Primary Data File

MODIFIED DATA: Data were modified for the following reason(s):

At The Project Leaders Request,  
additional BNA parameters  
are being reported in LIMs.

**United States Environmental Protection Agency**

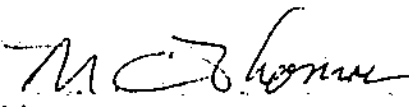
**Region 7 Laboratory  
25 Funston Road  
Kansas City, KS 66115**

**Date:** 5/24/2001

**Subject:** Transmittal of Sample Analysis Results for ASR #: 827

Activity Number: DLN14

Activity Description: Missouri Tie and Timber

**From:** Michael Thomas, Associate Laboratory Director   
Regional Laboratory, Environmental Services Division

**To:** Dedriel Newsome  
ENSV/ARCM

This is the sample analysis results transmittal for the above-referenced Analytical Services Request (ASR). The data contained in this transmittal have been approved by the Regional Laboratory. This transmittal contains all of the sample analysis results for this ASR. The Regional Laboratory should be notified within 14 days if any changes are needed to the contents of this report. If you have any questions, comments or data changes, please contact the Laboratory Customer Service Department at 913-551-5295.

cc: Analytical Data File

ASR Number: 827

Summary of Activity Information

4/6/2001

Activity Leader: Newsome, Dedriel

Org: ENSV/ARCM

Phone: (913) 551-7049

Activity Number: DLN14

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Purpose: Enforcement

Explanation of Codes, Units and Qualifiers used on this report.

Sample QC Codes: QC Codes identify the type of sample for quality control

— = Field Sample  
FD = Field Duplicate

Units: Specific units in which results are reported.

Deg C = Degrees Celsius  
mg/kg = Milligrams per Kilogram  
mg/L = Milligrams per Liter  
SU = Standard Units (pH)  
ug/kg = Micrograms per Kilogram  
ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.  
K = Actual value of the sample is less than the value reported.  
L = Actual value of the sample is greater than the value reported.  
U = Not detected at or above the reportable level shown.

Activity Number: DLN14

ASR Number: 827

## Sample Information Summary

Activity Desc: Missouri Tie and Timber

4/6/2001

Sample Numbe	QC Code	Matrix	Location	External Sample No.	Start Date	Start Time	End Date	End Time	Recelpt Date
100 -		Hazardous	Drip pad waste from drip pad collection system taken near South wall near RR tracks on West side		03/07/2001	13:45	03/07/2001	13:46	03/08/2001
101 -		Soil	T-Building wood storage area sample taken in drop areas		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
101 -	FD	Soil	T-Building wood storage area/Duplicate of sample 101		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
102 -		Soil	Background soil sample taken approx. 100 yds. South of office bldg.		03/07/2001	14:20	03/07/2001	14:25	03/08/2001
205 -		Water	Collection Pond water sample		03/07/2001	16:05	03/07/2001	16:18	03/08/2001
208 -		Water	Drinking water from on-site well near boiler		03/07/2001	15:50	03/07/2001	15:57	03/08/2001

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**Analysis      Comments About Results For This Analysis**

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**Semi-Volatile Organic Compounds in Hazardous Waste**

The compounds previously reported in the original transmittal under the "Total Semi-Volatiles of TCLP Compounds in Hazardous" are not reported again in this data set. See the original transmittal for these compounds and associated results.

As requested by the EPA Project Leader, the laboratory was requested to analyze the above samples for the complete list of routine BNA compounds after they had previously been analyzed, and data reported, for the totals of TCLP semivolatiles and TCLP semivolatiles. The laboratory proceeded with the analysis as requested. Although no data were qualified based on holding times, it is possible that the actual concentrations may have been higher than the reported results.

**Semi-Volatile Organic Compounds in Soil**

Sample 827-102 was not re-extracted with the other samples due to the fact that none of the target compounds exceeded the linearity in the initial analysis. The initial analysis of this sample (and all others) was analyzed in conjunction with a valid calibration for all target compounds. Therefore, the submitted data for this sample contained all target BNA compounds as requested. Also, the compounds previously reported in the original transmittal under the "Total Semi-Volatiles of TCLP Compounds in Solids" are not reported again in this data set. See the original transmittal for these compounds and associated results.

As requested by the EPA Project Leader, the laboratory was requested to analyze the above samples for the complete list of routine BNA compounds after they had previously been analyzed, and data reported, for the totals of TCLP semivolatiles and TCLP semivolatiles. The laboratory proceeded with the analysis as requested. Although no data were qualified based on holding times, it is possible that the actual concentrations may have been higher than the reported results.

Due to matrix interferences and very high native concentrations, MS/MSD recoveries of the phenolic compounds ranged from 0% - 7%. Based on the nature of the samples and the observed MS/MSD results, it is possible that the reported results for the phenolic compounds may be biased low.

**TCLP Semi-Volatiles in Hazardous**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**TCLP Semi-Volatiles in Soil**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Metals Analysis of TCLP Metals in Soil by ICAP**

Slight chromium contamination was found in the laboratory method blank. Only samples containing this compound at a level greater than five times the contamination level of the blank are reported without being qualified. All samples that contained this compound but at a level less than five times the contamination in the blank have the result "U-coded" indicating the method reporting limit has been raised to the level found in the sample. Samples affected were 827-101 and 827-101FD.

**Total Semivolatiles of TCLP compounds in Hazardous Waste**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Semivolatiles of TCLP compounds in Solids**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.



Analysis / Analyte	Units	100-	101-	101-FD	102-
<b>Flashpoint of Hazardous Samples</b>					
Flashpoint	Deg C	79	L		
<b>pH of Hazardous Sample</b>					
pH	SU	6.7			
<b>Semi-Volatile Organic Compounds in Hazardous Waste</b>					
Acenaphthene	mg/kg	10670			
Acenaphthylene	mg/kg	64.6			
Anthracene	mg/kg	14710			
Benzo(a)anthracene	mg/kg	3130			
Benzo(a)pyrene	mg/kg	957			
Benzo(b)fluoranthene	mg/kg	1070			
Benzo(g,h,i)perylene	mg/kg	233			
Benzo(k)fluoranthene	mg/kg	983			
Benzoic acid	mg/kg	149	U		
Benzyl alcohol	mg/kg	49.8	U		
bis(2-Chloroethoxy)methane	mg/kg	16.8	U		
bis(2-Chloroethyl)ether	mg/kg	14.9	U		
bis(2-Chloroisopropyl)ether	mg/kg	21.8	U		
bis(2-Ethylhexyl)phthalate	mg/kg	18.8	U		
4-Bromophenyl-phenylether	mg/kg	13.2	U		
Butylbenzylphthalate	mg/kg	14.1	U		
Carbazole	mg/kg	11650			
4-Chloro-3-methylphenol	mg/kg	35.3	U		
4-Chloroaniline	mg/kg	53	U		
2-Chloronaphthalene	mg/kg	25.4	U		
2-Chlorophenol	mg/kg	63.3	U		
4-Chlorophenyl-phenylether	mg/kg	15.3	U		
Chrysene	mg/kg	3770			
Di-n-butylphthalate	mg/kg	17.6	U		
Di-n-octylphthalate	mg/kg	15.9	U		
Dibenz(a,h)anthracene	mg/kg	8.1	U		
Dibenzofuran	mg/kg	8300			
1,2-Dichlorobenzene	mg/kg	33.8	U		
1,3-Dichlorobenzene	mg/kg	36.5	U		
3,3'-Dichlorobenzidine	mg/kg	186	U		
2,4-Dichlorophenol	mg/kg	55.5	U		
Diethylphthalate	mg/kg	11.6	U		
2,4-Dimethylphenol	mg/kg	296	U		
Dimethylphthalate	mg/kg	6.6	U		
4,6-Dinitro-2-methylphenol	mg/kg	63.9	U		
2,4-Dinitrophenol	mg/kg	112	U		
2,6-Dinitrotoluene	mg/kg	33.9	U		
Fluoranthene	mg/kg	22330			
Fluorene	mg/kg	14240			
Hexachlorocyclopentadiene	mg/kg	28.5	U		
Indeno(1,2,3-cd)pyrene	mg/kg	264			
Isophorone	mg/kg	27.6	U		
2-Methylnaphthalene	mg/kg	2080			
Naphthalene	mg/kg	4170			

Activity Number: DLN14

ASR Number: 827

RLAB Approved Sample Analysis Results

Activity Desc: Missouri Tie and Timber

4/6/2001

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
2-Nitroaniline	mg/kg	29.9 U			
3-Nitroaniline	mg/kg	71.9 U			
4-Nitroaniline	mg/kg	66.3 U			
2-Nitrophenol	mg/kg	50.4 U			
4-Nitrophenol	mg/kg	61.1 U			
N-nitroso-di-n-propylamine	mg/kg	24.8 U			
N-nitrosodiphenylamine	mg/kg	13.1 U			
Phenanthrene	mg/kg	53280			
Phenol	mg/kg	57.6 U			
Pyrene	mg/kg	15690			
1,2,4-Trichlorobenzene	mg/kg	24.5 U			
TCLP Metals in Haz. Waste					
Arsenic	mg/L	0.025 U			
Barium	mg/L	0.08			
Cadmium	mg/L	0.005 U			
Chromium	mg/L	0.005 U			
Lead	mg/L	0.025 U			
Selenium	mg/L	0.05 U			
Silver	mg/L	0.005 U			
TCLP Semi-Volatiles in Hazardous					
1,4-Dichlorobenzene	mg/L	0.00064 U			
2,4-Dinitrotoluene	mg/L	0.00073 U			
Hexachlorobenzene	mg/L	0.0005 U			
Hexachlorobutadiene	mg/L	0.00059 U			
Hexachloroethane	mg/L	0.00071 U			
2-Methylphenol	mg/L	0.014 U			
4-Methylphenol	mg/L	0.18			
Nitrobenzene	mg/L	0.00075 U			
Pentachlorophenol	mg/L	0.0012 U			
Pyridine	mg/L	0.0021 U			
2,4,5-Trichlorophenol	mg/L	0.0017 U			
2,4,6-Trichlorophenol	mg/L	0.0017 U			
Total Metals of TCLP in Hazardous Samples by ICAP					
Arsenic	mg/kg	125 U			
Barium	mg/kg	50 U			
Cadmium	mg/kg	25 U			
Chromium	mg/kg	25 U			
Lead	mg/kg	125 U			
Selenium	mg/kg	250 U			
Silver	mg/kg	25 U			
Total Semivolatiles of TCLP compounds in Hazardous Waste					
Pyridine	mg/kg	198 U			
Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg		117000	86500	7.2 U
Acenaphthylene	ug/kg		3020 U	3020 U	5.2 U
Anthracene	ug/kg		127000	99200	4.9 U
Benzo(a)anthracene	ug/kg		50200	38400	3.7 U
Benzo(a)pyrene	ug/kg		2940 U	2940 U	5.1 U

Activity Number: DLN14

ASR Number: 827

RLAB Approved Sample Analysis Results

Activity Desc: Missouri Tie and Timber

4/6/2001

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
Benzo(b)fluoranthene	ug/kg		4720 U	4720 U	8.1 U
Benzo(g,h,i)perylene	ug/kg		3870 U	3870 U	6.7 U
Benzo(k)fluoranthene	ug/kg		3940 U	3940 U	6.8 U
Benzoic acid	ug/kg		76500 U	76500 U	132 U
Benzyl alcohol	ug/kg		25700 U	25700 U	44.3 U
bis(2-Chloroethoxy)methane	ug/kg		8660 U	8660 U	14.9 U
bis(2-Chloroethyl)ether	ug/kg		7650 U	7650 U	13.2 U
bis(2-Chloroisopropyl)ether	ug/kg		11200 U	11200 U	19.3 U
bis(2-Ethylhexyl)phthalate	ug/kg		9660 U	9660 U	16.7 U
4-Bromophenyl-phenylether	ug/kg		6800 U	6800 U	11.7 U
Butylbenzylphthalate	ug/kg		7270 U	7270 U	12.5 U
Carbazole	ug/kg		86400	60700	78.7 U
4-Chloro-3-methylphenol	ug/kg		18200 U	18200 U	31.3 U
4-Chloroaniline	ug/kg		27300 U	27300 U	47.1 U
2-Chloronaphthalene	ug/kg		13100 U	13100 U	22.5 U
2-Chlorophenol	ug/kg		32600 U	32600 U	56.3 U
4-Chlorophenyl-phenylether	ug/kg		7890 U	7890 U	13.6 U
Chrysene	ug/kg		70500	62200	4.3 U
Di-n-butylphthalate	ug/kg		9050 U	9050 U	15.6 U
Di-n-octylphthalate	ug/kg		8200 U	8200 U	14.1 U
Dibenz(a,h)anthracene	ug/kg		4180 U	4180 U	7.2 U
Dibenzofuran	ug/kg		64300	37100	22.4 U
1,2-Dichlorobenzene	ug/kg		17400 U	17400 U	30 U
1,3-Dichlorobenzene	ug/kg		18800 U	18800 U	32.4 U
3,3'-Dichlorobenzidine	ug/kg		95900 U	95900 U	165 U
2,4-Dichlorophenol	ug/kg		28600 U	28600 U	49.3 U
Diethylphthalate	ug/kg		5950 U	5950 U	10.3 U
2,4-Dimethylphenol	ug/kg		152000 U	152000 U	263 U
Dimethylphthalate	ug/kg		3400 U	3400 U	5.9 U
4,6-Dinitro-2-methylphenol	ug/kg		32900 U	32900 U	56.8 U
2,4-Dinitrophenol	ug/kg		57700 U	57700 U	99.5 U
2,6-Dinitrotoluene	ug/kg		17500 U	17500 U	30.1 U
Fluoranthene	ug/kg		363000	297000	106
Fluorene	ug/kg		159000	120000	6.5 U
Hexachlorocyclopentadiene	ug/kg		14700 U	14700 U	25.3 U
Indeno(1,2,3-cd)pyrene	ug/kg		2550 U	2550 U	4.4 U
Isophorone	ug/kg		14200 U	14200 U	24.5 U
2-Methylnaphthalene	ug/kg		13400 U	13400 U	23.1 U
Naphthalene	ug/kg		3250 U	3250 U	5.6 U
2-Nitroaniline	ug/kg		15400 U	15400 U	26.5 U
3-Nitroaniline	ug/kg		37000 U	37000 U	63.9 U
4-Nitroaniline	ug/kg		34200 U	34200 U	58.9 U
2-Nitrophenol	ug/kg		26000 U	26000 U	44.8 U
4-Nitrophenol	ug/kg		31500 U	31500 U	54.3 U
N-nitroso-di-n-propylamine	ug/kg		12800 U	12800 U	22 U
N-nitrosodiphenylamine	ug/kg		6730 U	6730 U	11.6 U
Phenanthrene	ug/kg		648000	486000	195
Phenol	ug/kg		29700 U	29700 U	51.2 U
Pyrene	ug/kg		277000	233000	75
1,2,4-Trichlorobenzene	ug/kg		12600 U	12600 U	21.7 U

Activity Number: DLN14

ASR Number: 827

RLAB Approved Sample Analysis Results

Activity Desc: Missouri Tie and Timber

4/6/2001

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
<b>TCLP Metals in Soil</b>					
Arsenic	mg/L		5.0 K	5.0 K	
Barium	mg/L		100 K	100 K	
Cadmium	mg/L		1.0 K	1.0 K	
Chromium	mg/L		5.0 K	5.0 K	
Lead	mg/L		5.0 K	5.0 K	
Selenium	mg/L		1.0 K	1.0 K	
Silver	mg/L		5.0 K	5.0 K	
<b>TCLP Semi-Volatiles in Soil</b>					
1,4-Dichlorobenzene	mg/L		0.00064 U	0.00064 U	
2,4-Dinitrotoluene	mg/L		0.00073 U	0.00073 U	
Hexachlorobenzene	mg/L		0.0005 U	0.0005 U	
Hexachlorobutadiene	mg/L		0.00059 U	0.00059 U	
Hexachloroethane	mg/L		0.00071 U	0.00071 U	
2-Methylphenol	mg/L		0.0014 U	0.0014 U	
4-Methylphenol	mg/L		0.0013 U	0.0013 U	
Nitrobenzene	mg/L		0.00075 U	0.00075 U	
Pentachlorophenol	mg/L		0.0012 U	0.0012 U	
Pyridine	mg/L		0.0021 U	0.0021 U	
2,4,5-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
2,4,6-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
<b>Total Metals Analysis of TCLP Metals in Soil by ICAP</b>					
Arsenic	mg/kg		2.6 U	2.6 U	5.2
Barium	mg/kg		15	15.2	124
Cadmium	mg/kg		0.52 U	0.52 U	0.67 U
Chromium	mg/kg		5.5 U	4.2 U	11.4
Lead	mg/kg		3.1	6.1	27.6
Selenium	mg/kg		5.2 U	5.2 U	6.7 U
Silver	mg/kg		0.52 U	0.52 U	0.67 U
<b>Total Semivolatiles of TCLP compounds in Solids</b>					
1,4-Dichlorobenzene	ug/kg		200 U	200 U	26 U
2,4-Dinitrotoluene	ug/kg		160 U	160 U	20 U
Hexachlorobenzene	ug/kg		230 U	230 U	30 U
Hexachlorobutadiene	ug/kg		190 U	190 U	24 U
Hexachloroethane	ug/kg		260 U	260 U	33 U
2-Methylphenol	ug/kg		740 U	740 U	96 U
4-Methylphenol	ug/kg		610 U	610 U	78 U
Nitrobenzene	ug/kg		220 U	220 U	29 U
Pentachlorophenol	ug/kg		410 U	410 U	54 U
Pyridine	ug/kg		3400 U	3400 U	440 U
2,4,5-Trichlorophenol	ug/kg		370 U	370 U	48 U
2,4,6-Trichlorophenol	ug/kg		360 U	360 U	47 U

Analysis / Analyte	Units	205-	208-
<b>Metals in Water by ICP</b>			
Aluminum	ug/L	10900	100 U
Antimony	ug/L	20 U	20 U
Arsenic	ug/L	25 U	25 U
Barium	ug/L	86.3	30
Beryllium	ug/L	1 U	1 U
Cadmium	ug/L	5 U	5 U
Calcium	mg/L	12.7	48.6
Chromium	ug/L	13.6	5.2
Cobalt	ug/L	5 U	5 U
Copper	ug/L	10 U	10 U
Iron	ug/L	8980	50 U
Lead	ug/L	25 U	25 U
Magnesium	mg/L	6.4	26.7
Manganese	ug/L	130	5 U
Molybdenum	ug/L	10 U	10 U
Nickel	ug/L	15 U	15 U
Potassium	mg/L	3.6	2 U
Selenium	ug/L	50 U	50 U
Silver	ug/L	5 U	5 U
Sodium	mg/L	5.4	3.2
Thallium	ug/L	30 U	30 U
Titanium	ug/L	139	5 U
Vanadium	ug/L	23.8	5 U
Zinc	ug/L	22.9	72
<b>pH of Water</b>			
pH	SU	7.2	7.5
<b>Semi-Volatile Organic Compounds in Water</b>			
Acenaphthene	ug/L	0.16 U	0.16 U
Acenaphthylene	ug/L	0.2 U	0.2 U
Anthracene	ug/L	0.14 U	0.14 U
Benzo(a)anthracene	ug/L	0.099 U	0.099 U
Benzo(a)pyrene	ug/L	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/L	0.13 U	0.13 U
Benzo(g,h,i)perylene	ug/L	0.11 U	0.11 U
Benzo(k)fluoranthene	ug/L	0.12 U	0.12 U
Benzoic acid	ug/L	1.3 U	1.3 U
Benzyl alcohol	ug/L	0.96 U	0.96 U
bis(2-Chloroethoxy)methane	ug/L	0.32 U	0.32 U
bis(2-Chloroethyl)ether	ug/L	0.4 U	0.4 U
bis(2-Chloroisopropyl)ether	ug/L	0.33 U	0.33 U
bis(2-Ethylhexyl)phthalate	ug/L	0.83 U	0.83 U
4-Bromophenyl-phenylether	ug/L	0.35 U	0.35 U
Butylbenzylphthalate	ug/L	0.94 U	0.94 U
Carbazole	ug/L	2 U	2 U
4-Chloro-3-methylphenol	ug/L	1.2 U	1.2 U
4-Chloroaniline	ug/L	1.2 U	1.2 U
2-Chloronaphthalene	ug/L	0.69 U	0.69 U
2-Chlorophenol	ug/L	1.3 U	1.3 U

Activity Number: DLN14

ASR Number: 827

RLAB Approved Sample Analysis Results

Activity Desc: Missouri Tie and Timber

4/6/2001

Analysis / Analyte	Units	205-__	208-__
4-Chlorophenyl-phenylether	ug/L	0.28 U	0.28 U
Chrysene	ug/L	0.11 U	0.11 U
Di-n-butylphthalate	ug/L	0.31 U	0.31 U
Di-n-octylphthalate	ug/L	0.31 U	0.31 U
Dibenz(a,h)anthracene	ug/L	0.13 U	0.13 U
Dibenzofuran	ug/L	0.6 U	0.6 U
1,2-Dichlorobenzene	ug/L	0.86 U	0.86 U
1,3-Dichlorobenzene	ug/L	0.54 U	0.54 U
1,4-Dichlorobenzene	ug/L	0.64 U	0.64 U
3,3'-Dichlorobenzidine	ug/L	1.4 U	1.4 U
2,4-Dichlorophenol	ug/L	1.2 U	1.2 U
Diethylphthalate	ug/L	0.3 U	0.3 U
2,4-Dimethylphenol	ug/L	1.5 U	1.5 U
Dimethylphthalate	ug/L	0.23 U	0.23 U
4,6-Dinitro-2-methylphenol	ug/L	2 U	2 U
2,4-Dinitrophenol	ug/L	2.4 U	2.4 U
2,4-Dinitrotoluene	ug/L	0.73 U	0.73 U
2,6-Dinitrotoluene	ug/L	0.89 U	0.89 U
Fluoranthene W20	ug/L	1.3	0.12 U
Fluorene	ug/L	0.17 U	0.17 U
Hexachlorobenzene	ug/L	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.59 U	0.59 U
Hexachlorocyclopentadiene	ug/L	0.6 U	0.6 U
Hexachloroethane	ug/L	0.71 U	0.71 U
Indeno(1,2,3-cd)pyrene	ug/L	0.15 U	0.15 U
Isophorone	ug/L	0.81 U	0.81 U
2-Methylnaphthalene	ug/L	0.72 U	0.72 U
2-Methylphenol	ug/L	1.4 U	1.4 U
4-Methylphenol	ug/L	1.3 U	1.3 U
Naphthalene	ug/L	0.18 U	0.18 U
2-Nitroaniline	ug/L	0.78 U	0.78 U
3-Nitroaniline	ug/L	0.53 U	0.53 U
4-Nitroaniline	ug/L	0.86 U	0.86 U
Nitrobenzene	ug/L	0.75 U	0.75 U
2-Nitrophenol	ug/L	1.3 U	1.3 U
4-Nitrophenol	ug/L	1.4 U	1.4 U
N-nitroso-di-n-propylamine	ug/L	0.41 U	0.41 U
N-nitrosodiphenylamine	ug/L	0.33 U	0.33 U
Pentachlorophenol	ug/L	1.2 U	1.2 U
Phenanthrene	ug/L	0.11 U	0.11 U
Phenol	ug/L	1.1 U	1.1 U
Pyrene	ug/L	0.092 U	0.092 U
1,2,4-Trichlorobenzene	ug/L	0.7 U	0.7 U
2,4,5-Trichlorophenol	ug/L	1.7 U	1.7 U
2,4,6-Trichlorophenol	ug/L	1.7 U	1.7 U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

JUN 12 2001

MEMORANDUM

SUBJECT: Transmittal of Inspection Report - RCRA

FROM: Betty Berry, Chief  
ENSV/ARCM *Berry*

TO: Cecilia Tapia, Chief  
ARTD/RESP

This memorandum transmits the following inspection report conducted by the Environmental Services Division:

FACILITY: MO Tie & Lumber  
ADDRESS: Highway 72 West

INSPECTION DATE: 03/07/2001  
INSPECTOR: Newsome- D  
SIC CODE: 2491  
FACILITY ACTIVITY: creosote wood treater

INSPECTION TYPE: R-CSI  
ID NUMBER: Non Notifier  
ACTIVITY NUMBER:

*Reynolds*  
MO 63666

PRELIMINARY INSPECTION FINDINGS: NOV/NOFF ISSUED - Yes SNC - Yes

Hazardous waste determination, creosote releases.

COMMENTS: Appeared to have creosote spills greater than the reportable quantity of 1lb (0.11 gallon).

MULTIMEDIA: 1) Screening done - Yes Screening forwarded - Yes Forwarded to\* - E/T  
2) Inspection was part of a multimedia inspection with the following participating programs\* -  
\* A=CAA, W=CWA, R=RCRA, T/E=TSCA/EPCRA, U=UST, C=CFC, U-I=UIC, S=SPCC, Wet.=Wetland, All

ENVIRONMENTAL JUSTICE: Inspection was conducted in EJ (per MM Screening Checklist) - No

SMALL BUSINESS REGULATORY ENFORCEMENT ACT (SBREFA): Information provided - Yes

Attachments

# REPORT OF RCRA COMPLIANCE EVALUATION AND SAMPLING INSPECTION

AT

## MISSOURI TIE AND TIMBER

Highway 72 West  
Reynolds, MO 63666  
(573) 689 - 2040

EPA ID Number: Non-Notifier

ON

March 7, 2001

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Region VII  
Environmental Services Division

### 1.0 Introduction

At the request of the Air, RCRA and Toxics Division (ARTD), a Resource Conservation and Recovery Act (RCRA) compliance evaluation and sampling inspection was performed at Missouri Tie and Timber, Reynolds, MO, on March 7, 2001. The inspection was conducted under the authority of Section 3007 of RCRA, as amended. This report and attachments present the results of the inspection. This inspection was conducted as a Level C Multi-media Inspection. The two media were RCRA and SPCC. A Multi-Media Screening Checklist was also completed and is included as attachment I.

### 2.0 Participants

Missouri Tie and Timber (Missouri Tie):  
Junior Flowers, President/Part-Owner  
David Brawley, Part-Owner

U.S. Environmental Protection Agency (EPA):  
Dedriel L. Newsome, Environmental Engineer  
Trevor Urban, Environmental Scientist  
Dave Williams, On-Scene Coordinator



### 3.0 Inspection Procedures

Upon arrival at the facility, Mr. Urban, Mr. Williams and I met Mr. Flowers. I explained that I was there to conduct a RCRA inspection. Mr. Flowers stated that he had scheduled that morning for a tour for the Water Shed group. The Water Shed group consisted of various regional companies. Also along to tour with the group was a local newspaper and a representative from the Missouri Department of Natural Resources (MDNR) Popular Bluff office. While they were arriving, Mr. Flowers spent some time with us going through the entry briefing and facility description. I explained the purpose and procedures of the inspection to Mr. Flowers and presented him with my EPA credentials. I made him aware of their confidentiality rights and informed him that a Confidentiality Notice would be provided at the end of the inspection to make any claims. I provided him with a copy of US Federal Code 1001 concerning false statements to read. Mr. Flowers provided a facility description, process information and waste stream information. Once the Water Shed group had all arrived and were ready, we accompanied them on their tour of the facility. This also included a tour of a charcoal kiln (same owners as Missouri Tie) located about a mile east of the facility. Once Mr. Flowers was finished with the group, he took us on another visual inspection of specific areas of the facility. Samples were collected of wastes, soil, drinking water and surface water. I also reviewed pertinent documents that were made available by Mr. Flowers. Mr. Flowers stated that he handles the process and that his partner, Dave Brawley, handles the paperwork. He stated that Mr. Brawley's wife was having surgery that morning and he did not know where the records were located or what type of records they had. He also stated that they had just recently moved into this new office and a lot of the paper work was still in boxes. Mr. Flowers asked that I leave a list of the records I wanted to review. I provided him with attachment 2, and asked that if they had any of these types of records, then send copies of them to me. On 3/26/01, I received the additional records which are included as attachment 3. Photos were taken during the inspection using a digital camera (see photos 1 through 25). A video survey was also conducted at this site and the video tape is enclosed with this report.

At the conclusion of the inspection, an exit interview was held with Mr. Flowers where I reviewed our preliminary findings and observations. During the exit interview, Mr. Flowers acknowledged receipt of the following with his signature: a Confidentiality Notice, a Receipt for Documents and a Notice of Violation (NOV), see attachments 4 through 6. *No confidential business claims were made during the inspection.*

I phoned Mr. Brawley on 6/1/01 to obtain additional information, which he provided.

### 4.0 Findings And Observations

#### 4.1. General Information

Missouri Tie is located in a rural area surrounded by farmland. Mr. Flower stated that this facility was built on farmland that he and Mr. Brawley used to farm. The facility was built around 1998 and they started operating it in 1999. There are six full-time employees and the

company is operated 24 hours, seven days a week. The size of the site the company sits on is unknown, but the company actually uses about seven to eight acres. On-site is also a saw mill, Brawley and Flowers Saw Mill, that operates as a separate company. In the past, Mr. Flowers and Mr. Brawley treated rail ties at their Scott Tie facility located in Ellington, MO. This facility is currently closed. Mr. Flowers stated that he was not sure at this time if they were going to restart that facility or not. There were residences about 1500 feet northeast of the new facility. Missouri Tie has two drinking water wells on-site, one near the boiler and one near the office. A layout of the facility is shown in Figures 1 and 2.

Missouri Tie is owned by Mr. Flowers and Mr. Brawley. They also own Scott Tie and the charcoal kiln about a mile east down the road. I asked Mr. Flowers if they owned any other wood treating facilities and he stated "no."

#### 4.2. Facility Operations

Missouri Tie manufactures railroad ties by preserving red and black oak with creosote. Mr. Flowers stated that the creosote is not mixed and is 100% creosote. The type of creosote used is a mixture of polyaromatic hydrocarbons (PAH) as shown in the attached MSDS (see attachment 7). The creosote is purchased from KMG Bernuth, Granite City, IL (formerly Allied Signal) and is currently stored in one of three heated 30,000 gallon above ground storage tanks. (see attachment 8 for latest two shipping documents). There are actually four storage tanks, but Mr. Flowers stated that only three are currently being used (see Figure 2). The wood treating process is as follows as explained by Mr. Flowers:

- Receive cut wood. About 15% is cut by Brawley and Flowers Saw Mill and the other is purchased from off-site.
- Stack the wood outside for air drying which takes about seven months to a year. Prior to or after air drying, the ties are sent through a machine that makes perforated holes in them to help the creosote penetrate the wood. The ties are then end trimmed and an anti-split end plate is added to the ties prior to being re-bundled. Mr. Brawley stated that they do not use the cylinder to dry any wood prior to treatment.
- Load the wood on a tram to be treated in a treatment cylinder. The treatment cylinder is 6'D x 125'L. Missouri Tie treats about two loads a day (see attachment 9 for latest treatment log). About 14 trams of wood fit in the cylinder at a time. Mr. Flowers stated that sometimes they do not treat at all, such as during the winter months when business is slow.
- Steam is added to the cylinder to heat the wood prior to treatment (the creosote is stored at about 200°F and therefore the wood is heated up to about this temperature and also to aid in the creosote penetration). There is a boiler on-site that burns saw dust and provides steam for the treatment process and to heat the buildings.
- The cylinder is filled with creosote and pressure is applied using pressure pumps for about four to 18 hours depending on whether the wood being treated is green or air dried.
- The pressure is released and the creosote is returned to the working tanks. Mr. Flowers stated that there is a metal mesh filter that the creosote goes through prior to being returned to the storage tanks.

- A vacuum is then pulled on the cylinder for about two hours using steam injection pumps. Mr. Brawley stated that exhaust vents are located on the storage tanks and are vented to the atmosphere. The wood is pulled out of the cylinders on either side and is stored on the drip pad 12 to 24 hours to drip dry.

- The treat wood is then placed in a "T-Building" (a concrete pad with a small berm and a roof) prior to being shipped off-site. Some treated wood may also be stored on the ground prior to being shipped off-site. Mr. Flowers stated that there was no specific ground area used and that it could be anywhere. At the time of the inspection, treated wood was being stored on the ground on the south side of the facility. Mr. Flowers stated that this wood has been stored on the ground for less than two weeks (the exact time was unknown other than less than two weeks).

#### 4.3. RCRA Status

Missouri Tie has not submitted a Notification of Hazardous Waste Activity. During the inspection, I was not able to determine if any hazardous waste is generated on-site as no hazardous waste determination had been made on the process waste. None had been shipped off-site for disposal to date. Mr. Flowers stated that they have not cleaned out their process system since they started operating at this site. He stated that next week they will have their system (cylinder, vats, T-Buildings) cleaned. I asked that he send me a copy of the shipping papers for this waste which he agreed. I received the waste profile with the additional information on 3/26/01 which states that the creosote residue is an F034 hazardous waste (see attachment 3 page 29).

The wood preserving regulations became effective on 12/6/90, and established the F034 listing which consists of wastewaters, process residuals, preservative drippage, and spent formulations from plants that use creosote formulations. However, this F034 listing was a non-HSWA provision, and therefore, not applicable in Missouri as the state has not adopted this listing. Therefore, waste meeting this listing description would be a hazardous waste only if it is characteristic. The waste shipped may also be hazardous if it contains any unused creosote, U051. According to the listing, U051 consists of discarded commercial chemical creosote products or off-specification commercial chemical creosote products. I informed Mr. Flowers that if he generates any unused creosote with this waste then it would be a U051 hazardous waste, otherwise it is only hazardous if it is characteristic. Samples were collected of the process waste and analyzed for TCLP semi-volatiles, polycyclic aromatic hydrocarbons (PAH) and metals. Based on the analytical results of the samples collected during the inspection, it appears that Missouri Tie is a non-generator of RCRA hazardous waste.

During the inspection, I asked Mr. Flowers about 40 CFR Subpart W Drip Pad requirements in case the wastes were determined to be hazardous based on analytical results. As stated above in *Section 3.0*, Mr. Flowers stated that his partner, Dave Brawley, handles the paperwork and he handles the process. He stated that Mr. Brawley's wife was having surgery that morning and he did not know where the records were located or what type of records they have. He also stated that they had just recently moved into this new office and a lot of the paper work was still in boxes. He asked that I leave a list of the records I wanted to review. I provided him with the list

in attachment 3, and asked if they had any of these types of records, then send copies of them to me. However, as discussed below in the waste stream section, *Section 4.4*, Missouri Tie is a non-generator of hazardous waste. Therefore, none of these records would be required. Even though the process wastes are determined to be non-hazardous based on the TCLP analytical results, there appears to have been releases of the creosote preservative. This is based on the soil PAH analytical results in comparison to the background soil. Three of the PAHs detected in the soil are listed in the 40 CFR Part 261 Appendix VIII. One of the criteria EPA uses to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The constituents on this list have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

#### **4.4 Waste Management and Waste Streams**

To better understand the following waste streams and waste management practices discussed below, a layout of the treatment area is shown in Figures 1 and 2. A video of the facility is attached and photos of the facility are also included as photos 1 through 25.

##### **4.4.1 Process Drillage, Process Residues, Filter Residue, Tank Bottoms**

As discussed above, Mr. Flowers stated that they have not cleaned out their treatment system and generated any hazardous waste since they have started operating at this facility. He also stated that they have not shipped any waste off-site to date. He stated that they will be cleaning the treatment system (including the three vats in the east and west drip pad containment sump, the vat under the filter screen, the retort, etc.) next week. He stated that Rineco Chemical (Rineco), Dupon, IL, will be doing the cleaning and removing any waste. Mr. Flowers had a quotation from Rineco as shown in attachment 10. Based on the setup and operation of the treatment system, solid waste (process drillage, process residues, filter residue and tank bottoms) is generated in the vats, in the east and west containment sumps, and also in the vat used to collect the filter residue (see Figure 2). This is based on the following:

Mr. Flowers stated that the drillage is squeegeed from the east and west drip pads into their respective vats (see photos 1 through 6 and 11, and 12). He stated that the waste accumulating in these two east and west vats is not reused and will all be collected in drums and shipped to Rineco next week for disposal. The two vats are 18ft x 3.5ft x 2.5ft. The west vat contained about 18 inches of creosote drillage/residue and the east vat contained about 22 inches.

I observed about 20 5-gallon pails on the west side of the treatment cylinders that contained various levels of creosote drillage/residue (see photo 13). Mr. Flowers stated that this waste would be the same type of creosote drillage/residue that was in the two east and west vats. He stated that sometimes instead of the workers squeegeeing drillage from the far ends of the drip pads all the way down to the vats, they take a bucket to the drip pad area to be squeegeed and collect the drillage in the bucket. He stated that eventually this waste is added into the vats.

Mr. Flowers stated that the drillage collected in the vats under the cylinder doors is pumped back into the treatment system. He stated that any bottoms remaining in these

vats will also be cleaned out next week to be shipped to Rineco.

As the creosote is returned to the working tank after leaving the retort, it is sent through a metal filter screen to remove any residue. The metal filter screen is periodically cleaned and the residue is collected in a vat under the treatment cylinder (about 10ft x 2ft x 8in). It contained about six inches of residue that has not been cleaned to date.

If this combined waste is hazardous, then it would have been stored over 90 days in the drip pad vats since it has been accumulating in the vats since operations began in 1999. Since the unrecycled waste accumulating in the drip pad vats did not appear to be a listed waste (i.e. F034 is not applicable in the state of Missouri and no unused creosote was stated as being added to the vats), this waste is hazardous only if it is characteristic. Mr. Brawley stated that no unused creosote is added to the waste. No hazardous waste determination had been made on this waste. **Failure to make a hazardous waste determination is in violation of 10 CSR 25-5.262(1)→40 CFR 262.11. (NOV #1)** A sample was collected of this waste from the west vat, Sample #100, and it was analyzed for TCLP semi-volatiles, PAH, and metals. Based on the results, it was determined to be a non-hazardous waste. However, it did contain high levels of PAHs that are also listed in 40 CFR Part 261 Appendix VIII (see *Section 5.5.1* for further discussion).

After the wood is treated, it is either put on a concrete pad under a roof (a.k.a. T-Building) or is stored on the ground. I observed drippage puddled on the T-Building concrete pads (see photos 7 and 9). Mr. Flower stated that they have not cleaned these buildings to date. He stated that they will clean them next week when they clean the treatment system. There was also some drippage right along the edge of the pad (see photo 10). Mr. Flowers stated that they have not removed any of the soil from around these T-Buildings. He stated that they did pack more dirt/gravel on top of it. He stated that these areas around the T-Buildings will be cleaned next week also. A sample and a duplicate were collected from some of the stained soil near one of the T-Buildings; Sample #101/101FD, and they were analyzed for TCLP semi-volatiles, PAH, and metals. Based on comparing the analytical results to background levels (Sample #102), it was determined that creosote releases have occurred (see *Section 5.5.2* for further discussions).

#### 4.4.2 Other Wastes

The following table identifies other waste streams.

#	WASTE NAME	GENERATION PROCESS	HAZARDOUS WASTE DETERMINATION	ESTIMATED GENERATION RATE	ON-SITE MANAGEMENT	OFF-SITE MGMT/ DISPOSAL
1	Spent Personal Protective Equipment (PPE)	During the treatment process, PPE (rubber gloves) becomes contaminated with creosote.	Non-hazardous based on knowledge	1 to 2 pair of each / week	Collect with the creosote residue	RinecoChemical
2	Used Oil	Vehicle maintenance. (Mr. Flowers stated that they have not brought over their parts washer from Scott Tie yet.)	Used Oil	10 to 20 gallons/week	Collect in 55-gallon drums and used on the rollers and chains as a lubricant at the saw mill.	N/A
3	Used Oil Filters	Vehicle maintenance. The spent oil filters are drained.	Non-Hazardous Based on knowledge	Varies	The used oil filters are drained and disposed with the general trash.	Sanitary Landfill
4	Scrap Bandings	Some bandings break during the treatment process.	Non-hazardous based on knowledge	Varies	Splice and reuse on the bundles	N/A

#### 4.5 Other Requirements

The checklists completed during the inspection are included as attachment 11.

#### 5.0 Sampling

##### 5.1. Purpose and Objective

The purpose and objective of this sampling activity are discussed in the attached Quality Action Project Plan (QAPP) included as attachment 12.

##### 5.2. Weather Conditions

The weather was cool and partly sunny.

##### 5.3 Samples Collected and Sample Locations

The following sample locations are shown in Figures 1 and 2.

SAMPLE #	SAMPLE DESCRIPTION	PHOTO NUMBERS
100	Waste - Drip Pad Waste from west drip pad collection system	12
101/101D	Soil - T-Building Wood Storage Area	14, 20
102	Soil - Background	23
205	Surface Water - Collection Pond	25
208	Drinking Water - Well near boiler	24

The field sheets which contain the sample descriptions and Chain-of-Custody form are included as attachments 13 and 14. Mr. Flowers did not request split samples when I offered, therefore, none were provided to him.

##### 5.4. Sampling Procedures

In general, the sampling procedures were as discussed in the QAPP and the samples were collected as stated on the field sheet (see attachment 13).

##### 5.5. Analytical Results

The analytical results are included as attachment 15 and 16. There are two sets of data because the original set did not include all the PAHs. These PAH constituents were requested again and the results were sent over separately.

### 5.5.1. Hazardous Waste Determinations

According to the QAPP, any waste exceeding the regulatory thresholds is determined to be a hazardous waste. No samples collected and analyzed exceeded the regulatory limits. However, one of the criteria used to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The constituents on this list have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. The drip pad waste, Sample #100, contains high levels of various PAHs that are on the Appendix VIII list. They are as follows:

CHEMICAL NAME	RCRA CODE	ANALYTICAL RESULTS (mg/kg)
Benzo(a)anthracene	U018	3130
Benzo(a)pyrene	U022	957
Benzo(b)fluoranthene	No code	1070
Benzo(k)fluoranthene	No code	983
Chrysene	U050	3770
Fluoranthene	U120	22330
Indeno(1,2,3-cd)pyrene	U137	264
Naphthalene (U165)	U165	4170

### 5.5.2. Hazardous Release Determinations

According to the QAPP, soil sample data will be compared to the background sample data. A release will be deemed to have occurred if the soil sample exceeds background levels by more than a factor of two, assuming reasonable background levels. A background level is reasonable if it does not exceed the soil action levels established by EPA Region III. The following is a comparison of the soil background levels to the EPA Region III Risk-Based Concentrations, 10/5/00.



TCLP CONSTITUENTS	Sample #102 BACKGROUND SOIL (mg/kg)	RISK-BASE PARAMETER	SOIL INGESTION (mg/kg)	
			INDUSTRIAL	RESIDENTIAL
Arsenic	5.2	Arsenic	3.8	0.43
Barium	124	Barium	140000	5500
Cadmium	ND at 0.67	Cadmium - Water	1000	39
		Cadmium - Food	2000	78
Chromium	11.4	Chromium III	3100000	120000
		Chromium VI	6100	230
Lead	27.6	Lead*	400*	400*
Selenium	ND at 6.7	Selenium	10000	390
Silver	ND at 0.67	Silver	10000	390
Benzo(a)anthracene (PAH)	ND at 0.0037	-----	N/A	N/A
Chrysene (PAH)	ND at 0.0043	-----	N/A	N/A
Fluoranthene (PAH)	0.106	-----	N/A	N/A
* - According to the EPA Region III Risk-Based Table there are no calculated values for lead. It states that an EPA OSW Directive recommends that soil lead levels less than 400 ppm be considered safe for residential use, therefore the de facto lead soil number would be 400 mg/kg. ND - Non Detect "-----" - Not Listed N/A - Not Applicable				

As shown by the table above, except for arsenic, all the background levels are determined to be reasonable. The metals constituents levels in the soil background exceeded the levels in the soil samples #101 and 101FD. However, three PAH constituents listed on the 40 CFR 261 Appendix VIII list detected in the soil sample and its duplicate exceeded the soil PAH background levels by a factor of more than two. Based on this, creosote preservative releases have occurred. The three PAH constituents are benzo(a)anthracene - U018, chrysene - U050 and fluoranthene - U120. As stated above, one of the criteria used to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The constituents on this list have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. It should also be noted that according to the MSDS (attachment 7), the Reportable Quantity (RQ) for creosote is one pound. One pound is about 0.11 gallon (about seven ounces) based on the density of 9.1 lbs/gallon listed on the MSDS. It appeared that over seven ounces of creosote drippage were observed on the ground as I observed a one foot diameter spill (see photo 15). When a spill occurs greater than the RQ, an immediate notification is made to the National Response Center, the State Emergency Response Commission and the Local Emergency Planning Committee. I asked Mr. Brawley if they have ever reported any spills to any of these committees and he stated "no."

Missouri Tie has two drinking water wells on-site. One is located near the office (about 300 feet deep) and one is located near the Boiler Building (about 400 feet deep). A drinking water sample, Sample #208, was collected from the well near the boiler. According to the QAPP, groundwater data will be compared to EPA's Drinking Water Regulations and Health Advisories concentrations. The detected TCLP metal constituents (barium and chromium) were less than the maximum contaminant level (MCL) in drinking water, 2 mg/L and 0.1 mg/L, respectively. No PAHs were detected.

Missouri Tie has an on-site pond located between the treatment area and the office (see Figure 1). A sample, Sample #205, was collected from this pond. The surface water analytical results were compared to the NOAA Screening Quick Reference Tables. Two TCLP metals were detected: barium and chromium. There were no freshwater screening concentrations for barium and total chromium. The one detected PAH (fluoranthene) was less than the freshwater screening acute concentration for fluoranthene (3980 ppb).

### 5.6 QC Analysis

According to the QAPP, the acceptance limit for the precision assessed via field duplicates will be less than or equal to 50 percent relative percent difference. The field duplicates fall within the acceptance limits as defined in the QAPP (see attachment 17).

---

Dedriel L. Newsome  
Environmental Engineer  
Date:

#### Figures

1. Facility Layout
2. Treatment Area Layout

#### Attachments

1. Multi-Media Screening Checklist (2 pages)
2. Request For Information (2 pages)
3. Additional Information Received (31 pages)
4. Confidentiality Notice (1 page)
5. Document of Receipt (1 page)
6. NOV (1 page)
7. Creosote MSDS (9 pages)
8. Latest Two Creosote Shipments (2 pages)
9. Latest Treating Log (2 pages)
10. Rineco Quotation (3 pages)
11. Checklists (9 pages)
12. Wood Treaters QAPP (29 pages)
13. Field Sheets (6 pages)
14. Chain-of-Custody (1 page)
15. First Set of Analytical Results (8 pages)
16. Second Set of Analytical Results (11 pages)
17. QC Calculations (1 pages)

Photo Log (1 page)

Photographs (13 pages/25 photos)

Video Tape (1 tape)

Dedriel Newsome

Dedriel L. Newsome  
Environmental Engineer  
Date: 6/1/01

#### Figures

1. Facility Layout
2. Treatment Area Layout

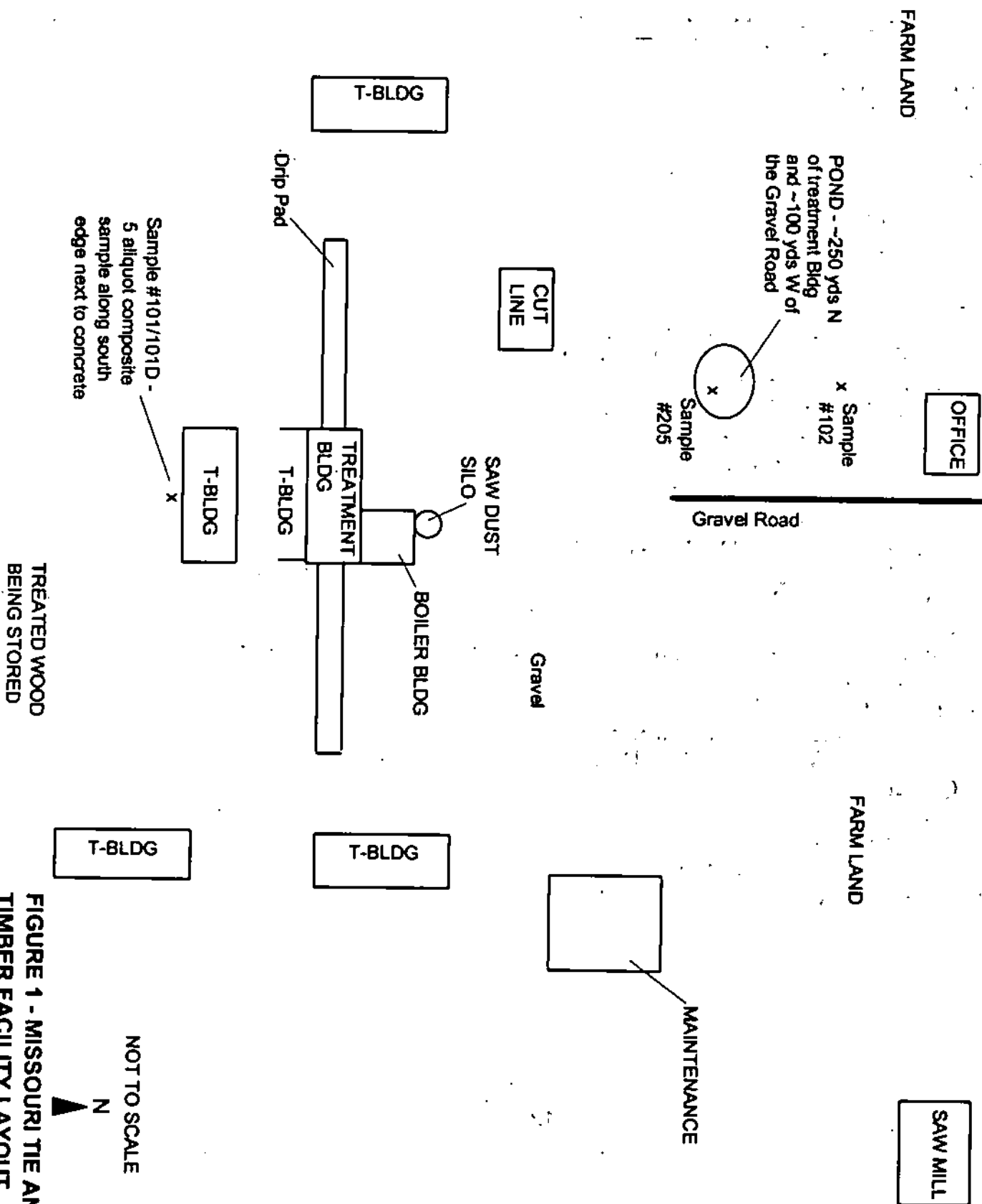
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16. Second Set of Analytical Results (11 pages)
17. QC Calculations (1 pages)

Photo Log (1 page)

Photographs (13 pages/25 photos)

Video Tape (1 tape)



## REGION VII MULTIMEDIA SCREENING CHECKLIST

Facility Missouri Tie & Lumber Facility Ownership Junior Flowers + Dave Brawley Inspector Dedriel Newsome  
 Street Highway 72 West Facility Contact Junior Flowers Primary Media RCRA  
 City Reynolds Phone (573) 689-2126 SIC code 2491 Inspector Phone Ext. 7049  
 State MO Zip 63666 Number of Employees 6 Work Hours/Shifts 24 hrs/7d/week Date 3/7/01

- What does the facility do? wood treater
- Provide a brief process description: treat wood in one of two vessels using creosote  
 (Check all that apply): Painting/Coating (Water-based ☐, Solvent-based ☐); Printing ☐; Reacting ☐; Formulating ☐; Distilling ☐;  
 Parts Washers/Degreasing (Water-based ☐, Halogenated-based ☐, Non-halogenated-based ☐); Combustion (boiler furnaces, oxidizers) ☒;  
 Electroplating (Chrome ☐, Other ☐); Electro-less plating (Type ☐)

### ENVIRONMENTAL JUSTICE (EJ - Note: Only forward to EJ if a concern is also identified in one of the regulatory areas below)

- Is the facility located in a low income area (e.g., with many abandoned and dilapidated properties)? No ☒ (stop) Yes ☐  
 Is the facility located less than 1000 feet from the nearest routinely occupied property (house, school, etc.)? No ☐ Yes ☐ → *Forward to EJ*

### TOXIC SUBSTANCES CONTROL ACT (TSCA) EMERGENCY PLANNING & COMMUNITY RIGHT TO KNOW ACT (EPCRA)

- Does the facility use more than 200 gallons or 1,500 pounds per month of the following (check all that apply): Acids ☐, Anhydrous Ammonia ☐, Chlorine ☐, Chlorinated Solvents ☐, Solvent-Based Paints ☐, or Solvents ☐? No ☒ (stop) Yes ☐ (Available on Envirofacts)  
 Have Toxic Chemical Release Forms (Form R) been submitted under Section 313 of EPCRA? Yes ☐ No ☐ → *Forward to TSCA*
- Does the facility store more than 100 gallons or 1,000 pounds of the following (check all that apply): Acids ☐, Bases ☐, Bulk Chemicals ☒, Anhydrous Ammonia ☐, Chlorine ☐, Chlorinated Solvents ☐, Fuels ☒, Gases ☒, Solvent-Based Paints ☐, or Solvents ☐? No ☐ (stop) Yes ☒  
 Have Hazardous Chemical Inventory Forms (Tier II) been submitted to local and state governments (Emergency Planning Committees or State Emergency Response Commission)? Yes ☒ No ☐ → *Forward to EPCRA*  
 Have Risk Management Plans been submitted to EPA under Section 112r of the CAA? Yes ☐ No ☐ → *Forward to EPCRA* (Available on Envirofacts)
- Does the facility have any equipment that contains PCB's at concentrations >500 ppm? No ☒ (stop) Yes ☐  
 Do you see any visibly leaking equipment (including wet or weeping equipment)? No ☐ Yes ☐ → *Forward to TSCA* (Get Photo)

### CLEAN WATER ACT (CWA) - National Pollution Discharge Elimination System (NPDES), Industrial Pretreatment

- Does the facility discharge any water to storm sewers, surface water, or the land? No ☐ (stop) Yes ☒ storm water  
 Are all of the water discharges permitted? Yes ☒ No ☐ → *Forward to CWA*
- Does the facility discharge process wastewater to the city POTW (Publically Owned Treatment Works)? No ☒ (stop) Yes ☐  
 Are the discharges permitted by: The state? ☐ (Stop here) The city? ☐ No ☐ → *Forward to CWA*;  
 Does the city have a state or EPA approved pretreatment program? Yes ☐ No or Don't Know ☐ → *Forward to CWA*
- Do you see any wastewater discharges not identified by the facility? No ☒ (stop) Yes ☐ Location: \_\_\_\_\_  
 Appearance of discharge: \_\_\_\_\_ (Get Photo) → *Forward to CWA*

### CLEAN WATER ACT (CWA) - Section 404 Wetlands

- Does the facility have any wetland areas (e.g. streams, ponds, or temporarily wet areas)? No ☐ (stop) Yes ☒ pond  
 Do you see any areas that have been filled, dredged, channelized, dammed, or had gravel removed from within the last 5 years?  
 No ☒ Yes ☐ → *FWD to Wetlands* When? \_\_\_\_\_ Location: \_\_\_\_\_ (Get Photo)

### SAFE DRINKING WATER ACT (SDWA) - Underground Injection Control (UIC) & Public Water System (PWS)

- Does the facility discharge any liquids to the subsurface (septic systems, disposal wells, cesspools, etc.)? No ☒ (stop) Yes ☐ → *Forward to UIC*  
 Do these liquid wastes consist of sanitary wastewater only? Yes ☐ No ☐
- Does the facility provide drinking water to 25 people or more from its own source (private well, pond, etc.)? No ☒ (stop) Yes ☐ → *Forward to PWS*  
 Does the facility test or monitor its drinking water in order to comply with state regulations? Yes ☐ No ☐

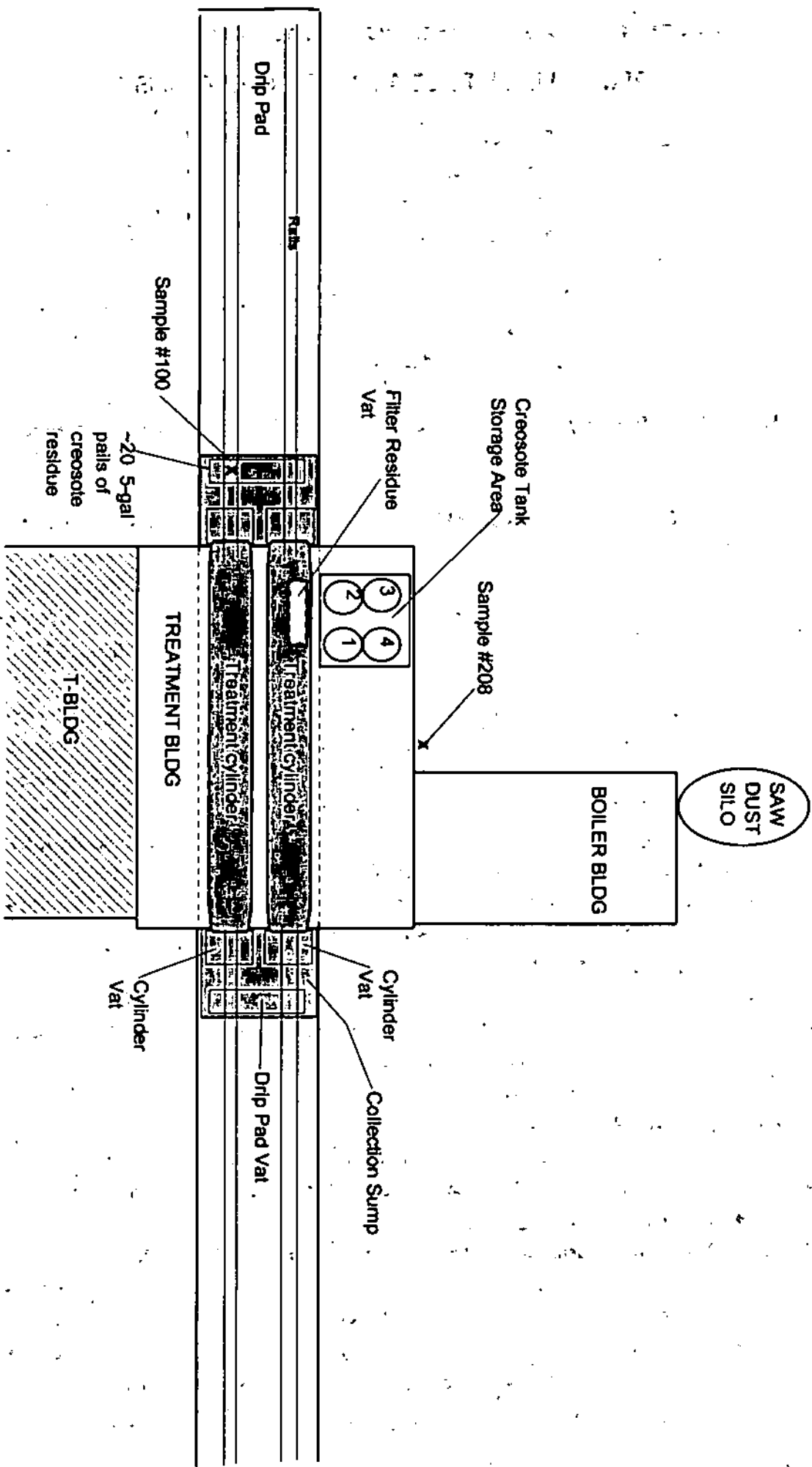


FIGURE 2 - MISSOURI TIE AND TIMBER FACILITY LAYOUT

NOT TO SCALE  
*H. Neumann*

# CLEAN AIR ACT (CAA)

1. Do you see any dense, non-steam, smoke or dust emissions leaving the facility property? No ☒ Yes ☐ → Forward to CAA

Source \_\_\_\_\_ (Get Photo)

2. Does the facility have any new air pollution emitting equipment that was constructed or installed in the past 5 years? No ☐ (stop) Yes ☐

Is specific equipment permitted? Yes ☐ No ☐ → Forward to CAA (Describe: \_\_\_\_\_)

3. Does the facility have any manufacturing process cooling units that contain >50 lbs of refrigerant? No ☒ (stop) Yes ☐ → Forward to CFC

Are these units: Self-serviced? ☐ Contract Serviced? ☐ Service Company: \_\_\_\_\_

4. Does the facility service motor vehicle air conditioning systems? No ☒ (stop) Yes ☐

Does the facility use more than one type of refrigerant? No ☐ Yes ☐

Types: \_\_\_\_\_

Does the facility have separate servicing and recovery equipment for each type of refrigerant? Yes ☐ No ☐ → Forward to CFC

5. Does the facility use any of these refrigerants: Duracool ☐? Enviro-safe ☐? OZ-12 ☐? HC-12a ☐? No ☐ Yes ☐ → Forward to CFC

## RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

1. Does the facility generate more than 30-gallons (220 lbs/100kg) of hazardous waste per month or at any one time? No ☒ (stop) Yes ☐

EPA Hazardous Waste Identification Number? # Non-notifier Generator Size CESG None ☐ → Forward to RCRA

2. Does the facility treat ☐, burn ☐, landfill ☐, or have surface impoundments ☐, for on-site hazardous waste management? No ☐ (stop) Yes ☐

Is facility permitted for above described activity? Yes ☐ No ☐ → Forward to RCRA

3. Does the facility generate, store, or ship off-site large quantities (>10 drums, roll-offs, waste piles, etc.) of waste material that they claim to be

non-hazardous (exclude clean office trash, cardboard, & packaging type wastes)? No ☐ (stop) Yes ☐

List Waste Type

What information can the facility show you that demonstrates the waste is actually non-hazardous?

(see report)

Testing, industry or manf. info., MSDS, etc. ☐; None available ☐ → Forward to RCRA

Testing, industry or manf. info., MSDS, etc. ☐; None available ☐ → Forward to RCRA

Testing, industry or manf. info., MSDS, etc. ☐; None available ☐ → Forward to RCRA

Testing, industry or manf. info., MSDS, etc. ☐; None available ☐ → Forward to RCRA

Testing, industry or manf. info., MSDS, etc. ☐; None available ☐ → Forward to RCRA

4. Do you see any hazardous waste containers, drums, or tanks leaking? No ☒ Yes ☐ → Forward to RCRA

Describe: \_\_\_\_\_ (Get Photo)

5. Do you see any signs of spills or releases (e.g., dead or stressed vegetation, stains, discoloration)? No ☐ Yes ☒ → Forward to RCRA

Describe: appeared to be > 1 lb which is the RCRA (Get Photo)

6. Do you see any chemical or waste handling practices that concern you (access to children/public)? No ☐ Yes ☐ → Forward to RCRA

Describe: see report (releases) (Get Photo)

## UNDERGROUND STORAGE TANKS (UST part of RCRA)

1. Does the facility have any past or present underground petroleum product or hazardous material tanks? No ☒ Yes ☐ → Forward to UST

2. Does the facility have any underground fuel tanks for emergency generators? No ☒ Yes ☐ → Forward to UST

## SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC) See Dave's report. This was a multi-media inspec

1. Does the facility have any aboveground oil tanks (petroleum, synthetic, animal, fish, vegetable), with an aggregate volume >1320 gallons? SPCC +

No ☐ (stop) Yes ☐ Is there and SPCC Plan? Yes ☐ No ☐ → Forward to SPCC

Do you see a secondary containment system for the tanks? Yes ☐ No ☐ → Forward to SPCC

Do you see any leaking tanks where oil could reach waters of the State or U.S.? No ☐ Yes ☐ (Get Photo) → Forward to SPCC

\*PLEASE TAKE PHOTOS TO DOCUMENT POTENTIAL PROBLEMS.



3/7/01

## Request For Information

- ① Any documentation that all treated wood has been left on the drip pad until all drippage has ceased.
- ② Any documentation on how the drip pad will be cleaned (the procedures that will be used including the date and time of each cleaning).
- ③ Any documentation of clean-up activities in response to any infrequent incidental drippage in the Storage Yard areas.
- ④ Any documentation of the date, time, & quantity of any leakage collected in the drip pad's leak collection system.
- ⑤ Any documentation of the dates, times, & quantity of waste removed from the drip pad and associated collection systems.
- ⑥ Any test results, waste analyses, or other determinations made.
- ⑦ Any Contingency Plans
- ⑧ Any manifests

⑨ PE certified assessment of drip pad  
Also any inspections during construction.

⑩ Facility layout - note ponds

⑪ Drip pad drawing showing layers

⑫ Any inspection logs of the drip pad surface  
or any other area.

MISSOURI TIE & TIMBER, INC.  
P. O. BOX 730  
REYNOLDS, MISSOURI 63666  
PHONE 573-689-2040

RECEIVED  
MAR 26 2001  
ARCM/ENSV

March 21, 2001

U. S. Environmental Protection Agency, Region VII  
Attention: Ms. Diedriel Newsome  
901 North 5th Street  
Kansas City, Kansas 66101

Dear Diedriel:

I am writing you in response to your request for some information during your site visit on March 07, 2001. I am sorry I was unable to produce the information during your visit, I had to take my wife for a medical outpatient procedure.

Please find enclosed the following:

- (1) Waste Material Profile Sheet
- (2) Ceased Dripage Inspection Log
- (3) Drip Pad Cleaning Log
- (4) Storage Yard Cleanup Activities Log
- (5) Leak Collection System Log

The contingency plan, and assessment of the drip pad will be forthcoming under a separate letter. Please let me know if you have any questions concerning this matter.

Sincerely,

  
David F. Brawley

- ① Any documentation that all treated wood has been left on the drip pad until all drippage has ceased.
- ② Any documentation on how the drip pad will be cleaned (the procedures that will be used including the date and time of each cleaning).
- ③ Any documentation of clean-up activities in response to any infrequent incidental drippage in the Storage Yard areas.
- ④ Any documentation of the date, time, & quantity of any leakage collected in the drip pad's leak collection system.
- ⑤ Any documentation of the dates, times, & quantity of waste removed from the drip pad and associated collection systems.
- ⑥ Any test results, waste analyses, or other determinations made.
- ⑦ Any Contingency Plans.
- ⑧ Any manifests.

④ PE-certified assessment of drip pad.  
Also any inspections during construction.

⑩ Facility layout - note ponds

⑪ Drip pad drawing showing layers

⑫ Any inspection logs of the drip pad surface  
or any other area

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
1/1/2000	Visual	GM		None
1/2	"	GM		"
1/3	"	GM		"
1/4	"	GM		"
1/5	"	GM		"
1/6	"	GM		"
1/7	"	GM		"
1/8	"	GM		"
1/9	"	GM		"
1/10	"	GM		"
1/11	"	DB		"
1/12	"	DB		"
1/13/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual Inspection (problems noticed during normal work activities)
  - Monthly Inspection
  - Tank Inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
1/14/2000	Visual	GM		None
1/15	"	GM		"
1/16	"	DB		"
1/17	"	DB		"
1/18	"	GM		"
1/19	"	GM		"
1/20	"	GM		"
1/21	"	GM		"
1/22	"	DB		"
1/23	"	DB		"
1/24	"	DB		"
1/25	"	DB		"
1/26/2000	"	DB		"

**INSTRUCTIONS:**

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**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
1/27/2000	Visual	GM		None
1/28	"	GM		"
1/29	"	GM		"
1/30	"	GM		"
1/31	"	GM		"
2/1	"	GM		"
2/2	"	GM		"
2/3	"	GM		"
2/4	"	GM		"
2/5	"	DB		"
2/6	"	DB		"
2/7	"	DB		"
2/8/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
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- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

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**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
2/9/2000	Visual	GM		None
2/10	"	GM		"
2/11	"	GM		"
2/12	"	GM		"
2/13	"	DB		"
2/14	"	DB		"
2/15	"	DB		"
2/16	"	GM		"
2/17	"	DB		"
2/18	"	GM		"
2/19	"	GM		"
2/20	"	GM		"
2/21/2000	"	GM		"

**INSTRUCTIONS:**

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- 2) Type of inspection is one of the following:
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  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

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**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
2/22/2000	Visual	GM		None
2/23	"	GM		"
2/24	"	GM		"
2/25	"	GM		"
2/26	"	GM		"
2/27	"	GM		"
2/28	"	GM		"
2/29	"	GM		"
3/1	"	GM		"
3/2	"	GM		"
3/3	"	GM		"
3/4	"	GM		"
3/5/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
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The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
3/6/2000	Visual	GM		None
3/7	"	DB		"
3/8	"	DB		"
3/9	"	GM		"
3/10	"	GM		"
3/11	"	GM		"
3/12	"	GM		"
3/13	"	GM		"
3/14	"	GM		"
3/15	"	GM		"
3/16	"	GM		"
3/17	"	GM		"
3/18/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
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  - Tank inspection
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**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
3/19/2000	Visual	DB		None
3/20	"	DB		"
3/21	"	DB		"
3/22	"	DB		"
3/23	"	GM		"
3/24	"	GM		"
3/25	"	GM		"
3/26	"	GM		"
3/27	"	DB		"
3/28	"	DB		"
3/29	"	DB		"
3/30	"	GM		"
3/31/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections.
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all dripage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
4/1/2000	Visual	DB		None
4/2	"	DB		"
4/3	"	DB		"
4/4	"	GM		"
4/5	"	GM		"
4/6	"	GM		"
4/7	"	GM		"
4/8	"	DB		"
4/9	"	DB		"
4/10	"	DB		"
4/11	"	GM		"
4/12	"	GM		"
4/13/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
4/14/2000	Visual	GM		None
4/15	"	GM		"
4/16	"	GM		"
4/17	"	DB		"
4/18	"	DB		"
4/19	"	DB		"
4/20	"	DB		"
4/21	"	DB		"
4/22	"	DB		"
4/23	"	DB		"
4/24	"	DB		"
4/25	"	DB		"
4/26/2000	"	DB		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

- Operating Practices  
 - Ceased Drillage  
 - Inspection Log  
 Missouri Tie & Timber, Inc.

Date	Type of Inspection	Inspector	Comments	Action Taken
4/27/2000	Visual	GM		None
4/28	"	GM		"
4/29	"	GM		"
4/30	"	GM		"
5/1	"	DB		"
5/2	"	DB		"
5/3	"	GM		"
5/4	"	GM		"
5/5	"	GM		"
5/6	"	DB		"
5/7	"	DB		"
5/8	"	DB		"
5/9/2000	"	DB		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all dripage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
5/10/2000	Visual	GM		None
5/11	"	DB		"
5/12	"	DB		"
5/13	"	DB		"
5/14	"	DB		"
5/15	"	DB		"
5/16	"	DB		"
5/17	"	DB		"
5/18	"	DB		"
5/19	"	GM		"
5/20	"	DB		"
5/21	"	GM		"
5/22/2000	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).



**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
5/23/2000	Visual	GM		None
5/24	"	GM		"
5/25	"	GM		"
5/26	"	GM		"
5/27	"	GM		"
5/28	"	GM		"
5/29	"	GM		"
5/30	"	GM		"
5/31	"	GM		"
6/1	"	GM		"
6/2	"	GM		"
6/3	"	GM		"
6/4/2000	"	DB		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual Inspection (problems noticed during normal work activities)
  - Monthly Inspection
  - Tank Inspection
- 3) Comments should describe any problem detected during visual or other inspections.
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Dripping  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
1/1/2001	Visual	PFB		None
1/2/2001	"	GM		"
1/3/2001	"	GM		"
1/4	"	GM		"
1/5	"	GM		"
1/6	"	GM		"
1/7	"	GM		"
1/8	"	GM		"
1/9	"	PFB		"
1/10	"	DB		"
1/11	"	DB		"
1/12	"	GM		"
1/13/2001	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of Inspection is one of the following:
  - Visual Inspection (problems noticed during normal work activities)
  - Monthly Inspection
  - Tank Inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all dripping has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
1/14/2001	Visual	GM		None
1/15	"	GM		"
1/16	"	GM		"
1/17	"	GM		"
1/18	"	GM		"
1/19	"	GM		"
1/20	"	GM		"
1/21	"	GM		"
1/22	"	GM		"
1/23	"	GM		"
1/24	"	GM		"
1/25	"	GM		"
1/26/2001	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
1/27/2001	Visual	DB		None
1/28	"	DB		"
1/29	"	GM		"
1/30	"	GM		"
1/31	"	GM		"
2/1	"	GM		"
2/2	"	GM		"
2/3	"	DB		"
2/4	"	DB		"
2/5	"	DB		"
2/6	"	GM		"
2/7	"	GM		"
2/8/2001	"	DFB		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections.
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector	Comments <sup>3</sup>	Action Taken <sup>4</sup>
2/9/2001	Visual	DFTB		None
2/10	"	GM		"
2/11	"	DB		"
2/12	"	DB		"
2/13	"	GM		"
2/14	"	GM		"
2/15	"	GM		"
2/16	"	DB		"
2/17	"	DB		"
2/18	"	GM		"
2/19	"	GM		"
2/20	"	GM		"
2/21/2001	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual Inspection (problems noticed during normal work activities)
  - Monthly Inspection
  - Tank Inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
2/22/2001	Visual	GM		None
2/23	"	DFB		"
2/24	"	DFB		"
2/25	"	DB		"
2/26	"	DB		"
2/27	"	GM		"
2/28	"	GM		"
3/1	"	GM		"
3/2	"	GM		"
3/3	"	DB		"
3/4	"	DB		"
3/5	"	DB		"
3/6/2001	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual Inspection (problems noticed during normal work activities)
  - Monthly Inspection
  - Tank Inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

**Operating Practices  
Ceased Drillage  
Inspection Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
3/7/2001	Visual	GM		None
3/8	"	GM		"
3/9	"	GM		"
3/10	"	DB		"
3/11	"	DB		"
3/12	"	DB		"
3/13	"	GM		"
3/14	"	GM		"
3/15	"	GM		"
3/16	"	GM		"
3/17	"	GM		"
3/18	"	GM		"
3/19/2001	"	GM		"

**INSTRUCTIONS:**

- 1) Date of the inspection or when a problem is first observed.
- 2) Type of inspection is one of the following:
  - Visual inspection (problems noticed during normal work activities)
  - Monthly inspection
  - Tank inspection
- 3) Comments should describe any problem detected during visual or other inspections
- 4) Action taken should describe how a problem was corrected or should read "None" if no problems were detected.

The above inspection Log is documentation that all treated wood has been left on the Subpart W drip pad until all drillage has ceased (Section 264.573(k)/Section 265.443(k)).

Operating Practices  
Drip Pad Cleaning Log  
Missouri Tie & Timber, Inc.

Date	Type of Inspection	Inspector	Comments	Action Taken
1/3/2000 7:00 AM	Pad cleaning	GM	Used squeegee/scrapped	Cleaned
1/10/2000 7:00 AM	"	GM	"	"
1/17/2000 7:00 AM	"	DFB	"	"
1/24 7:00 AM	"	DFB	"	"
1/31 6:50 AM	"	GM	"	"
2/7 7:00 AM	"	GM	"	"
2/14 6:00 AM	"	DFB	"	"
2/21 6:00 AM	"	GM	"	"
2/28 6:45 AM	"	GM	"	"
3/6 7:00 AM	"	GM	"	"
3/13 7:00 AM	"	GM	"	"
3/20 7:00 AM	"	GM	"	"
3/27/7:00 AM 2000	"	GM	"	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection - Pad Cleaning
- 3) Comments - How was it cleaned?
- 4) Action Taken - Cleaned

The above cleaning log is documentation that the Subpart W drip pads were cleaned to provide for the weekly inspection of the drip pad without hindrance from accumulated residues (Section 264.573(i)/Section 265.443(i)).



Operating Practices  
Drip Pad Cleaning Log  
Missouri Tie & Timber, Inc.

Date	Type of Inspection	Inspector	Comments	Action Taken
4/3/2000 6:00 AM	Pad Cleaning	DFB	used squeegee/scraped	Cleaned
4/10/2000 7:00 AM	"	DFB	"	"
4/17 7:00 AM	"	GM	"	"
4/24 7:00 AM	"	GM	"	"
5/1 7:00 AM	"	GM	"	"
5/8 6:00 AM	"	GM	"	"
5/15 6:50 AM	"	GM	"	"
5/22 6:45 AM	"	GM	"	"
5/29 7:00 AM	"	GM	"	"
6/5 7:00 AM	"	DFB	"	"
6/12 7:00 AM	"	DFB	"	"
6/19 7:00 AM	"	GM	"	"
6/26/2000 6:50 AM	"	GM	"	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection - Pad Cleaning
- 3) Comments - How was it cleaned?
- 4) Action Taken - Cleaned

The above cleaning log is documentation that the Subpart W drip pads were cleaned to provide for the weekly inspection of the drip pad without hindrance from accumulated residues (Section 264.573(i)/Section 265.443(i)).

**Operating Practices  
Drip Pad Cleaning Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
7/6/2000 6:30 AM	Pad Cleaning	GM	used squeegee / scraped	Cleaned
7/10/2000 7:00 AM	"	GM	"	"
7/17 6:30 AM	"	GM	"	"
7/24 7:00 AM	"	DFB	"	"
7/31 6:30 AM	"	DFB	"	"
8/7 7:00 AM	"	GM	"	"
8/14 7:00 AM	"	GM	"	"
8/21 6:30 AM	"	GM	"	"
8/28 7:00 AM	"	GM	"	"
9/4 6:30 AM	"	DFB	"	"
9/11 7:00 AM	"	DFB	"	"
9/19 6:30 AM	"	GM	"	"
9/26/2000 7:00 AM	"	GM	"	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection - Pad Cleaning
- 3) Comments - How was it cleaned?
- 4) Action Taken - Cleaned

The above cleaning log is documentation that the Subpart W drip pads were cleaned to provide for the weekly inspection of the drip pad without hindrance from accumulated residues (Section 264.573(i)/Section 265.443(i)).

**Operating Practices  
Drip Pad Cleaning Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
10/2/2000 7:00 AM	Pad Cleaning	DFB	Used squeegee/scraped	Cleaned
10/10 6:50 AM	"	DFB	"	"
10/17 6:30 AM	"	DFB	"	"
10/23 7:00 AM	"	GM	"	"
10/30 7:00 AM	"	GM	"	"
11/6 7:00 AM	"	GM	"	"
11/13 7:00 AM	"	GM	"	"
11/20 6:30 AM	"	GM	"	"
11/27 7:00 AM	"	GM	"	"
12/4 7:00 AM	"	GM	"	"
12/11 7:00 AM	"	DFB	"	"
12/18 7:00 AM	"	DFB	"	"
12/25/2000 7:00 AM	"	DFB	"	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection - Pad Cleaning
- 3) Comments - How was it cleaned?
- 4) Action Taken - Cleaned

The above cleaning log is documentation that the Subpart W drip pads were cleaned to provide for the weekly inspection of the drip pad without hindrance from accumulated residues (Section 264.573(i)/Section 265.443(i)).

**Operating Practices  
Leak Collection System  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
1/5/1999 7:30 AM	Visual	DFB	Everything OK - NO LEAKS NO CIPROSOLE	None
2/1/99 7:00 AM	Visual	DFB	"	"
3/1/99 8:00 AM	"	DFB	"	"
4/1/99 7:30 AM	"	DFB	"	"
5/3/99 7:00 AM	"	DFB	"	"
6/1/99 7:00 AM	"	DFB	"	"
7/1/99 3:00 PM	"	DFB	"	"
8/2/99 3:30 PM	"	DFB	"	"
9/1/99 2:00 PM	"	DFB	"	"
10/1/99 2:30 PM	"	DFB	"	"
11/1/99 3:00 PM	"	DFB	"	"
12/1/99 4:00 PM	"	DFB	"	"
1/3/2000 3:00 PM	"	DFB	"	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection
- 3) Comments
- 4) Action Taken

The above log is documentation that the Leak Collection System residues are removed from the associated collection system at least once every 90 days. This process will help ensure that owners/operators do not accumulate hazardous wastes for longer than the 90 days allowed by Federal regulations (Section 262.34(a)(iii)(A)).

**Operating Practices  
Leak Collection System  
Missouri Tie & Timber, Inc.**

Date <sup>1</sup>	Type of Inspection <sup>2</sup>	Inspector <sup>3</sup>	Comments <sup>4</sup>	Action Taken <sup>5</sup>
2/1/2000 7:45 AM	Visual	DFB	NO LEAKS - Everything OK NO CROSOTEC	None
3/1/2000 7:30 AM	Visual	DFB	"	None
4/3/2000 3:00 PM	Visual	DFB	"	None
5/1/2000 4:00 PM	Visual	DFB	"	None
6/1/2000 3:00 PM	Visual	DFB	"	None
7/3/2000 2:00 PM	Visual	DFB	"	None
8/3/2000 3:30 PM	Visual	DFB	"	None
9/4/2000 4:30 PM	Visual	DFB	"	None
10/9/2000 3:00 PM	Visual	DFB	"	None
11/6/2000 8:00 AM	Visual	DFB	"	None
12/1/2000 7:00 AM	Visual	DFB	"	None
1/8/2001 10:00 AM	Visual	DFB	"	None
2/5/2001 12:00 PM	Visual	DFB	"	None

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection
- 3) Comments
- 4) Action Taken

The above log is documentation that the Leak Collection System residues are removed from the associated collection system at least once every 90 days. This process will help ensure that owners/operators do not accumulate hazardous wastes for longer than the 90 days allowed by Federal regulations (Section 262.34(a)(iii)(A)).

Operating Procedures  
Storage Yard Cleanup Activities Log  
Missouri Tie & Timber, Inc.

Date	Type of Inspection	Inspector	Comments	Action Taken
1/17/2000 9:00 AM	Visual	DFB	Scoop up creosote on pads (T-shirts), put in pit to be re-cycled.	Cleaned
3/7/2000 7:30 AM	Visual	DFB	"	Cleaned
4/25/2000 2:00 PM	Visual	DFB	"	"
6/6/2000 1:00 PM	Visual	DFB	"	"
7/24/2000 7:30 AM	Visual	DFB	"	"
9/11/2000 4:00 PM	Visual	DFB	"	"
10/24/2000 7:00 AM	Visual	DFB	"	"
12/11/2000 10:45 AM	Visual	DFB	"	"
1/23/2001 7:30 AM	Visual	DFB	Scoop up creosote on pads (T-shirts) and put in pits + barrels to be recycled or sent off.	"
2/27/2001 8:00 AM	Visual	DFB	Scoop up creosote on T-shirt pads put in pit to recycle.	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection
- 3) Comments - How was it cleaned?
- 4) Action Taken - Cleaned

The above Storage Yard Cleanup Activities Log is documentation of all cleanup activities in response to any infrequent incidental drippage in the storage yard. This documentation must be kept in the facility's files for at least three years. (Section 264.570(c)/Section 265.440(c))

[illegible]

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99	100

100

[illegible]

## VI. SHIPPING INFORMATION

Profile #: 0103-02067

DOT Hazardous Material: Yes

ER Guide #: 171

Proper Shipping Name: Hazardous Waste Solid, N.O.S.

Hazard Class and Division: 9

UN or NA: UN3077

Packaging Group: III

RQ: Yes If Yes: F034 @ 1 lb

Addl. Information:

USEPA HAZARDOUS WASTE: Yes

F034

Waste I.D.  
Numbers:

## VII. INDICATE IF THIS WASTE CONTAINS ANY OF THE FOLLOWING CHARACTERISTICS as defined by 40 CFR 261.24. Check only if waste exceeds regulatory threshold levels and include analytical date if available.

Constituent	Regulatory level PPM	TCLP PPM	Total PPM	Know ledge	Constituent	Regulatory level PPM	TCLP PPM	Total PPM	Know ledge
D004 Arsenic	5.0			No	D024 m-Cresol	200.0			No
D005 Barium	100.0			No	D025 p-Cresol	200.0			No
D006 Cadmium	1.0			No	D026 Cresol	200.0			No
D007 Chromium	5.0			No	D027 1,4-Dichlorobenzene	7.5			No
D008 Lead	5.0			No	D028 1,2-Dichloroethane	0.5			No
D009 Mercury	0.2			No	D029 1,1 Dichloroethylene	0.7			No
D010 Selenium	1.0			No	D030 2,4 Dinitrotoluene	0.13			No
D011 Silver	5.0			No	D031 Heptachlor	0.008			No
D012 Edria	0.02			No	D032 Hexachlorobenzene	0.13			No
D013 Lindene	0.4			No	D033 Hexachlorobutadiene	0.5			No
D014 Methoxychlor	10.0			No	D034 Hexachloroethane	3.0			No
D015 Toxaphene	0.5			No	D035 Methyl Ethyl Ketone	200.0			No
D016 2,4 Dichlorophenoxyacetic acid	10.0			No	D036 Nitrobenzene	2.0			No
D017 2,4,5 TP Silvex	1.0			No	D037 Pentachlorophenol	100.0			No
D018 Benzene	0.5			No	D038 Pyridine	3.0			No
D019 Carbon Tetrachloride	0.5			No	D039 Tetrachloroethylene	0.7			No
D020 Chlordane	0.03			No	D040 Trichloroethylene	0.5			No
D021 Chlorobenzene	100.0			No	D041 2,4,5 Trichlorophenol	400.0			No
D022 Chloroform	6.0			No	D042 2,4,6 Trichlorophenol	2.0			No
D023 o-Cresol	200.0			No	D043 Vinyl Chloride	0.2			No

## VIII. Benzene Waste Operations NESHA Generator Certification. Complete only if D018 and/or U019 appear in section 6 (shipping information).

1. Is this waste generated by an industry with any of the following SIC Codes: 2911, 2800-2899, 3312 or 4953? No
2. Does this stream have Benzene concentration of 10ppm or more? No
3. Does this stream contain greater than 10% moisture? No
4. Is this company's Total Annual Benzene (TAB) of 10Mg or greater per year? No

AUTHORIZATION TO CORRECT WASTE MATERIAL PROFILE SHEET: In the event Rineco determines that it is necessary to make corrections on this Waste Material Profile Sheet to make the information herein consistent with the results of the sample characterization and/or applicable federal and state statutes and regulations, Rineco will contact the Generator and receive oral authorization to make such corrections. Generator does does not hereby authorize Rineco to make such changes pursuant to this paragraph.

## GENERATOR CERTIFICATION: THIS CERTIFICATION IS REQUIRED FOR EACH PROFILE.

This above information is to be held confidential and is true and accurate to the best of my knowledge.

Signature: David F BrawleyDate: 3-7-2001Print Name: David F BrawleyTitle: Owner

3/7/01 10:36:25AM



**Rineco**

819 Vulcan Road - Haskell

P.O. Box 729, Benton, AR

Office (501) 778-9089 Fax (501) 778-8505

Prepared by: Rachel Whitley

**FOR OFFICE USE ONLY**

Account Rep: Jim Sparks

Walk Through: No

Region: N05

Special Instructions: No

Profile #: 0103-02067

Create Date: 3/1/01

Broker Rep #:

Last Cert Date: 3/1/01

Status: Approved

Expiration Date: 3/1/02

**I. WASTE MATERIAL PROFILE SHEET**

In accordance with the Federal and State regulations, it is necessary for the Generator of hazardous waste to properly identify the waste for their records as well as to supply the disposal facility with the information necessary to handle the waste. The information outlined below must be complete, and signed by the generator. PLEASE PRINT LEGIBLY OR TYPE.

Generator Name: **Missouri Tie & Timber**USEPA I.D. No. **MOD080003684**Address: **P.O. Box 730 Highway 72 West**

State I.D. No.

**Reynolds, MO 63666**Phone: **573-689-2040**Fax: **573-689-2120**Technical Contact: **David Brawley**

Title:

24 Hour Emergency Contact: **David Brawley**24 hour Phone: **573-689-2040**Is this material located or generated in a foreign country? **No**

Foreign Address:

**II. GENERAL INFORMATION**Material Name: **Creosote Contaminated Soil & Debris**

- No** A. Does waste exhibit the characteristic of ignitability as defined in 40 CFR 261.21?
- No** B. Does waste exhibit the characteristic of corrosivity as defined in 40 CFR 261.22?
- No** C. Does waste exhibit the characteristic of reactivity as defined in 40 CFR 261.23?
- No** D. Is waste a spent solvent as defined in 40 CFR 261.31?
- No** E. Is waste a discarded chemical product, off spec, container or spill residues as defined in 40 CFR 261.33?

Detailed description of process generating waste: **From Creosote Plant**Anticipated Monthly Volume: **10**Bulk: **No** Drum: **Yes** Other: **No****III. MATERIAL COMPOSITION**

COMPONENT	Concentration			PP
	Min	Max	Actual	
Creosote contaminated w/solids containing soil, PPE, &			100.00	
Creosote			50.00	
Soil, PPE, Wood			50.00	

**IV. PHYSICAL CHARACTERISTICS**

Physical State: **Solid**

Free Liquid: **No**

Viscosity: **High**

Layers: **Single**

Odor: **Mild**

Flash Point: **> 200F**

BTU: **na**

pH Level:

Actual pH: **na**

Density: **na**

**V. OTHER CHARACTERISTICS**

**No** Explosive **No** Dioxin

**No** Radioactive **No** Shock Sensitive

**No** Sulfide **No** PCB

**No** Etiological **No** Cyanid

**No** Pyrophoric **No** Water Reactive

3/7/01 10:36:25AM

**Operating Practices  
Drip Pad Cleaning Log  
Missouri Tie & Timber, Inc.**

Date	Type of Inspection	Inspector	Comments	Action Taken
1/4/2001 7:00 AM	Pyd cleaning BUA		Used Squeegee/scraped	Cleaned
1/8/2001 8:00 AM	"		"	"
1/16/2001 9:30 AM	"		"	"
1/23/2001 2:00 PM	"		"	"
1/29/2001 3:25 PM	"		"	"
2/5/2001 4:00 PM	"		"	"
2/12/2001 1:00 PM	"		"	"
2/20/2001 7:30 AM	"		"	"
2/28/2001 2:30 PM	"		"	"
3/5/2001 4:30 PM	"		"	"
3/14/2001 1:25 PM	"		"	"
3/19/2001 12:00 PM	"		"	"

**Instructions:**

- 1) Date and Time of the inspection.
- 2) Type of Inspection - Pad Cleaning
- 3) Comments - How was it cleaned?
- 4) Action Taken - Cleaned

The above cleaning log is documentation that the Subpart W drip pads were cleaned to provide for the weekly inspection of the drip pad without hindrance from accumulated residues (Section 264.573(i)/Section 265.443(i)).

1990

1990

[illegible]

100

1. The first part of the document is a header section containing the title "THE HISTORY OF THE UNITED STATES OF AMERICA" and the author "BY JAMES M. SMITH, M.D., LL.D., F.R.S.E., F.R.S., F.R.S.D., F.R.S.L., F.R.S.M., F.R.S.N., F.R.S.I., F.R.S.A., F.R.S.C., F.R.S.E., F.R.S.L., F.R.S.M., F.R.S.N., F.R.S.I., F.R.S.A., F.R.S.C."

2. The second part of the document is a table of contents, listing the chapters and their corresponding page numbers.

3. The third part of the document is the main body of the text, which is a detailed history of the United States of America, covering the period from the first settlement of the continent to the present day.

4. The fourth part of the document is a list of references, including books, articles, and other sources used in the writing of the history.

5. The fifth part of the document is a list of names, including the names of the authors, editors, and other individuals mentioned in the text.

6. The sixth part of the document is a list of dates, including the dates of the events described in the text.

7. The seventh part of the document is a list of places, including the names of the cities, towns, and other locations mentioned in the text.

8. The eighth part of the document is a list of events, including the names of the battles, wars, and other significant occurrences mentioned in the text.

9. The ninth part of the document is a list of names, including the names of the authors, editors, and other individuals mentioned in the text.

10. The tenth part of the document is a list of dates, including the dates of the events described in the text.

11. The eleventh part of the document is a list of places, including the names of the cities, towns, and other locations mentioned in the text.

12. The twelfth part of the document is a list of events, including the names of the battles, wars, and other significant occurrences mentioned in the text.

13. The thirteenth part of the document is a list of names, including the names of the authors, editors, and other individuals mentioned in the text.

14. The fourteenth part of the document is a list of dates, including the dates of the events described in the text.

15. The fifteenth part of the document is a list of places, including the names of the cities, towns, and other locations mentioned in the text.

16. The sixteenth part of the document is a list of events, including the names of the battles, wars, and other significant occurrences mentioned in the text.

17. The seventeenth part of the document is a list of names, including the names of the authors, editors, and other individuals mentioned in the text.

18. The eighteenth part of the document is a list of dates, including the dates of the events described in the text.

19. The nineteenth part of the document is a list of places, including the names of the cities, towns, and other locations mentioned in the text.

20. The twentieth part of the document is a list of events, including the names of the battles, wars, and other significant occurrences mentioned in the text.

[illegible]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
CONFIDENTIALITY NOTICE

Facility Name <i>Missouri Tie &amp; Timber</i>	
Facility Address <i>Reynolds, MO</i>	
Inspector (print) <i>Dedriel Newsome</i>	
U.S. EPA, Region VII, 901 N. 5th St., Kansas City, KS 66101	Date <i>3/7/01</i>

The United States Environmental Protection Agency (EPA) is obligated, under the Freedom of Information Act, to release information collected during inspections to persons who submit requests for that information. The Freedom of Information Act does, however, have provisions that allow EPA to withhold certain confidential business information from public disclosure. To claim protection for information gathered during this inspection you must request that the information be held CONFIDENTIAL and substantiate your claim in writing by demonstrating that the information meets the requirements in 40 CFR 2, Subpart B. The following criteria in Subpart B must be met:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. No statute specifically requires disclosure of the information.
3. Disclosure of the information would cause substantial harm to your company's competitive position.

Information that you claim confidential will be held as such pending a determination of applicability by EPA.

I have received this Notice and <u>DO NOT</u> want to make a claim of confidentiality at this time.	
Facility Representative Provided Notice (print) <i>THOMAS FLOWERS</i>	Signature/Date <i>Thomas Flowers 3/7/01</i>

I have received this Notice and <u>DO</u> want to make a claim of confidentiality.	
Facility Representative Provided Notice (print)	Signature/Date

Information for which confidential treatment is requested:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RECEIPT FOR DOCUMENTS AND SAMPLES

Facility Name	Missouri Tie & Timber
Facility Address	Reynolds, MO

Documents Collected? YES ☒ (list below) NO ☐

Samples Collected? YES ☒ (list below) NO ☐ Split Samples: YES ☐ NO ☒ <sup>not</sup> <sub>requesting</sub>

Documents/Samples were: 1) Received no charge ☒ 2) Borrowed ☐ 3) Purchased ☐

Amount Paid: \$  Method: Cash ☐ Voucher ☐ To Be Billed ☐

The documents and samples described below were collected in connection with the administration and enforcement of the applicable statute under which the information is obtained.

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

Creosote Bill of Lading (2 pages)

Treatment Log (2 pages)

Quotation for Disposal (3 pages)

Creosote MSDS (9 pages)

Samples

- 100 Drip Pad Waste From Drip Pad Collection System
- 101/101D T-Building Wood Storage Area
- 102 Background
- 208 Drinking Water Well
- 209 Collection Pond

Facility Representative (print)	Signature/Date
Juvinor Flowers	Juvinor Flowers 3/7/01
Inspector (print)	Signature/Date
Dedriel Newsome	Dedriel Newsome 3/7/01
U.S.EPA, Region VII, ENSV Division, 25 Funston Road, Kansas City, KS 66115	

(rev:1/20/93)

Notice of Violation Pursuant to Requirements  
of the Resource Conservation and Recovery Act (RCRA)

TO: Facility Name: Missouri Tie & Lumber  
Address: HWY 72  
Reynolds, MO  
EPA ID Number: N/A Date: 3/7/01

This notice is provided to call your attention to the following areas of noncompliance with state and federal regulations. This notice does not constitute a compliance order (Administrative Civil Complaint) pursuant to Section 3008 of RCRA and may not be a complete listing of all violations resulting from the the inspection.

<u>Citation</u>	<u>Description of Violation</u>
<u>10 CSR 25-5.262(1)</u> <u>→ 40 CFR 262.11</u>	<u>Make a hazardous waste determination</u> <u>on process residues</u>

You are requested to submit a written response within 14 calendar days of receipt of this notice. Your response should include a description of all corrective actions taken and/or a schedule for completing the necessary corrective actions. The response should be submitted to:

U. S. Environmental Protection Agency, Region VII  
901 N. 5th Street  
Kansas City, KS 66101  
ATTN: Dedriel Newsome

If you have any questions about this Notice or wish to discuss your response, you may call me at  
(913) 551-7649 or Jim Aycock (Compliance Officer) at  
(913) 551-7887

This Notice prepared by Dedriel Newsome Date: 3/7/01

The undersigned person acknowledges that he/she has received a copy of this Notice and has read same.

Printed Name: Junior Flowers Date: 3/07/01  
Signature: Junior Flowers  
Title: Owner

January 31, 1997

Scott Tie Co. Inc.  
P.O. Box 278  
Ellington, MO 63638

Dear Sir / Madam:

The purpose of this letter is to inform you that a product that we sell to you, **Coal Tar Creosote (Creosote Distillate, Creosote Solution, Creosote 24CB, LV Creosote)**, contains a chemical (s) which is listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986. Under this Act, we are required to notify you of the presence of these chemicals in our products. This law requires certain manufacturers to report on annual emissions of specified toxic chemicals and chemical categories.

This product contains the following chemical(s) regulated under Section 313:

<u>Chemical</u>	<u>CAS No.</u>	<u>Concentration</u>
Creosote	8001-58-9	100.0% (wt.)

If you are unsure if you must report or require more information, call the EPA Emergency Planning and Community Right-To-Know Hotline: (800) 535-0202 or (202) 479-2449 (in Washington, DC or Alaska). Your other suppliers should also be notifying you if Section 313 chemicals are in the mixtures and trade name products they sell to you.

Please also note that if you repackage or otherwise redistribute this product to industrial customers, a notice similar to this one should be sent to those customers.

**Also attached is the following:**

1. Important letter regarding states where AlliedSignal creosote may be sold or used
2. Current Material Safety Data Sheet (MSDS) for creosote

Questions on the above notification should be directed to my attention at 201-455-5908.

Sincerely,

  
Samuel A. VishicManager - Technical & Environmental Services  
Carbon Materials & Technologies

Attachment: Product Safety Data Sheet (MSDS) - Coal Tar Creosote

January 31, 1997

Re: FIFRA Registered Creosote Use

Dear Creosote Customer:

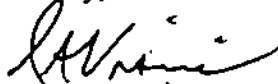
The following is provided to alert you to the requirements for the sale and use of AlliedSignal's Creosote products registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). We are providing you with a complete list of states in which our Creosote materials are registered for sale and use. Please note that the use and/or sale of our Creosote products into any other state is not permitted.

AlliedSignal Creosote products are registered in the following states:

Alabama	Kentucky	Oregon
Arkansas	Louisiana	Pennsylvania
Arizona	Mississippi	Texas
Connecticut	Missouri	Virginia
Georgia	New Jersey	West Virginia
Illinois	New York	Wisconsin
Indiana	North Carolina	

We trust that this information will guide you should questions arise concerning the use of these products or their shipment between states. If you have any questions on this matter, please contact me at 201-455-5908.

Sincerely,



Samuel A. Visnic

Manager - Technical & Environmental Services  
Carbon Materials & Technologies



# Material Safety Data Sheet

## CREOSOTE

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CREOSOTE

OTHER/GENERIC NAMES: Coal Tar Creosote

PRODUCT USE: Wood preservative

MANUFACTURER: AlliedSignal Inc.  
Carbon Materials & Technologies  
101 Columbia Road  
P.O. Box 1053  
Morristown, NJ 07962-1053

FOR MORE INFORMATION CALL:  
(Monday-Friday, 9:00am-4:30pm) (EST)  
Product Safety Department  
201-455-4157

IN CASE OF EMERGENCY CALL:  
(24 Hours/Day, 7 Days/Week)  
201-455-2000

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	WEIGHT %
Creosote *	8001-58-9	100

\* Mixture of 2, 3, & 4-ringed polynuclear aromatic hydrocarbons, including some substituted compounds

Trace impurities and additional material names not listed above may also appear in Section 15. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

### 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Creosote is a brown to black oily liquid with a penetrating smoky odor. Vapor causes moderate to severe irritation of eyes, nose, throat and respiratory tract. Liquid can cause burning and itching with reddening of the skin, which is accentuated by sunlight.

#### POTENTIAL HEALTH HAZARDS

**SKIN:** Contact with skin can result in irritation, which when not washed off or when accentuated by sunlight, can result in minor burns.

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE**

**EYES:** Overexposure to product vapors can result in irritation. Eye contact with product will result in irritation, which in the absence of recommended first aid can result in effects ranging from minor burns to severe corneal injury, including keratitis, conjunctivitis and corneal abrasion.

**INHALATION:** Overexposure to vapor may result in irritation to respiratory tract. Prolonged exposure in significant excess of permissible air concentrations can result in acute toxic effects, such as dizziness, respiratory difficulty, convulsions and possible cardiovascular collapse.

**INGESTION:** Irritation of the gastrointestinal tract followed by nausea and vomiting, abdominal discomfort, rapid pulse, etc. Cardiovascular collapse may occur.

**DELAYED EFFECTS:** Prolonged and repeated skin exposure over many years in the absence of recommended hygiene practices may lead to changes in skin pigmentation, benign skin growths and may, in some cases, result in skin cancer. Additionally, inhalation may present a lung cancer hazard.

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
Creosote	Carcinogen	2A - Probable	—

**4. FIRST AID MEASURES**

**SKIN:** Wash thoroughly with waterless hand cleaners, olive oil or soap and water. Avoid solvents.

**EYES:** Flush eyes immediately with large amounts of water or olive oil for at least 15 minutes. Call a physician.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration; preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

**INGESTION:** If conscious, first induce vomiting, then take 2 tablespoons of activated charcoal - (USP-drug grade) in water. Get immediate medical attention. Do not induce vomiting, or give anything by mouth to an unconscious person.

**ADVICE TO PHYSICIAN:** No additional instructions.

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

**FLASH POINT:** > 93 °C (> 200 °F) / > 93 °C (> 200 °F)  
**FLASH POINT METHOD:** Closed Cup / Open Cup  
**AUTOIGNITION TEMPERATURE:** 336 °C (637 °F)  
**UPPER FLAME LIMIT (volume % in air):** Not Determined

## MATERIAL SAFETY DATA SHEET

### CREOSOTE

LOWER FLAME LIMIT (volume % in air): Not Determined  
FLAME PROPAGATION RATE (solids): Not Applicable  
OSHA FLAMMABILITY CLASS: Not Determined

EXTINGUISHING MEDIA: Water/fog, carbon dioxide, foam, dry chemicals, sand or steam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Water/fog is recommended for the control of unconfined oil fires, but water may cause frothing or eruption in closed tank.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: Self-contained breathing apparatus (SCBA) and full protective clothing should be worn when fumes and/or smoke are present.

#### 6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (Always wear recommended personal protective equipment.)

Avoid breathing vapors and contact with skin and eyes. Avoid sources of ignition (sparks or open flame). Contain the spill or leak with solids, such as sand, earth, etc. Contaminated materials must be handled and managed as RCRA Hazardous Waste and treated before disposal in approved facilities. Do not allow to enter into sewers or waterways.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15.

#### 7. HANDLING AND STORAGE

NORMAL HANDLING: (Always wear recommended personal protective equipment.)

Wear clothing closed at the neck, long sleeves and non-porous type gloves, e.g. neoprene, butyl rubber, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC).

STORAGE RECOMMENDATIONS: Recommended temperature for storage is about 140 °F

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use in areas with adequate natural or local exhaust ventilation.

##### PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION: Avoid skin contact, whenever possible by using non-porous type gloves. For outdoor work use a waterproof sunscreen (SPF 25 or greater); reapply every 90 minutes while in direct sun. For exposed skin, use protective creams, (for example; MSA's Fend AE-2, Kerodex 51, Jergens SBS-46).

EYE PROTECTION: Safety glasses, goggles and/or face shield.

RESPIRATORY PROTECTION: Not required for properly ventilated areas. Use a NIOSH approved respirator with suitable organic vapor cartridge as necessary to control exposures above the TLV or PEL.

## MATERIAL SAFETY DATA SHEET

### CREOSOTE

**ADDITIONAL RECOMMENDATIONS:** Do not take contaminated work clothing home. It is recommended that a complete soap and water shower and/or steam bath be taken at the end of each working day.

#### EXPOSURE GUIDELINES

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
Creosote (measured as Coal Tar Pitch Volatiles, CTPV)	0.2 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>	—

**OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:** None

### 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Dark brown to black oily liquid
PHYSICAL STATE:	Liquid
MOLECULAR WEIGHT:	130 - 210
CHEMICAL FORMULA:	Mixture of organic compounds
ODOR:	Penetrating smoky odor
SPECIFIC GRAVITY (water = 1.0):	1.03 - 1.18 (Avg.: 9.1 lbs/gal)
SOLUBILITY IN WATER (weight %):	Insoluble
pH:	Not Determined
BOILING POINT:	194 - 400 °C
MELTING POINT:	Not Determined
VAPOR PRESSURE (in mm Hg):	at 100 °C = 80 mm; at 125 °C = 225 mm; at 150 °C = 370 mm
VAPOR DENSITY (air = 1.0):	< 1
EVAPORATION RATE:	< 1
% VOLATILES:	Not Determined
FLASH POINT:	Closed cup: > 93 °C (> 200 °F) Open cup: > 93 °C (> 200 °F)

COMPARED TO: Butyl Acetate = 1

(Flash point method and additional flammability data are found in Section 5.)

### 10. STABILITY AND REACTIVITY

**STABILITY (CONDITIONS TO AVOID):** Product stable under normal conditions. Due to its low vapor pressure and extremely low evaporation rate, the volatility rate at 20 °C is almost zero. Upon heating, at extremely high temperatures, hydrocarbons will be emitted and some degradation will take place. Avoid loading or unloading near open flame.

**INCOMPATIBILITIES:** Mixing chlorosulfonic acid and creosote oil in a closed container can cause an increase in temperature and pressure [NFPA 491M, 1991]

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose under normal conditions of use. When heated to extreme temperatures creosote emits acrid smoke.

**HAZARDOUS POLYMERIZATION:** Will not occur

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE**

**11. TOXICOLOGICAL INFORMATION**

**IMMEDIATE (ACUTE) EFFECTS:** Oral LD<sub>50</sub>: 725 mg/kg (rat); 433 mg/kg (mouse)

**DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:** Several studies in mice have shown the formation of both local (i.e. skin) and distant (i.e. lung) tumor formation after dermal exposure to creosote. [Poel & Kammer, 1957; Roe et al, 1958]

**OTHER DATA:** Has caused mutations in *S. typhimurium* strains TA98, TA100, TA1537, TA1538 and mouse lymphoma cell, L5178y. [Fed Reg., 1978; Bos et al, 1983] Death from large doses of creosote appears due primarily to cardiovascular collapse. Fatalities have occurred 14 - 36 hours after the ingestion of creosote (about 7 g for adults; about 1 or 2 g for children). [Clayton & Clayton, 3rd ed., 1981]

**12. ECOLOGICAL INFORMATION**

**MARINE POLLUTANT.** Toxic to fish and wildlife. Do not discharge into bodies of water.

TL<sub>50</sub>, *Carassius auratus* (goldfish); 3.51 ppm/24 hours [60:40 mixture of creosote & coal tar]

TL<sub>50</sub>, *Lepomis macrochirus* (bluegill); 4.42 ppm/24 hours [60:40 mixture of creosote & coal tar]

TL<sub>50</sub>, *Salmo gairdneri* (rainbow trout); 3.72 ppm/24 hours [60:40 mixture of creosote & coal tar]

LD<sub>50</sub>, *Colinus virginianus* (bobwhite quail); 1260 ppm/8 days [60:40 mixture of creosote & coal tar]

LD<sub>50</sub>, *Anas platyrhynchos* (mallard duck); 10.388 ppm/8 days [60:40 mixture of creosote & coal tar]

**13. DISPOSAL CONSIDERATIONS**

**RCRA**

Is the unused product a RCRA hazardous waste if discarded? YES

If yes, the RCRA ID number is: U051

**OTHER DISPOSAL CONSIDERATIONS:**

Other waste code designations for creosote containing wastes appear in the December 6, 1990 *Federal Register* as F034: Wastewater's, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. Please consult with the appropriate state regulatory authorities to determine when the F034 designation is effective in the given state.

Creosote-containing wastes may also be characteristic hazardous wastes, even if not meeting the U051, K001, or F034 waste code designation

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE**

**14. TRANSPORT INFORMATION**

US DOT HAZARD CLASS: Environmentally Hazardous Substance, Liquid, N.O.S. (Creosote), 9  
 US DOT ID NUMBER: UN 3082  
 US DOT SHIPPING NAME: RQ, Environmentally Hazardous Substance, Liquid, N.O.S. (Creosote), 9, UN3082, III Marine Pollutant

For additional information on shipping regulations affecting this material, contact the number found in Section 1.

**15. REGULATORY INFORMATION**

**TOXIC SUBSTANCES CONTROL ACT (TSCA)**

TSCA INVENTORY STATUS: Listed on EPA's TSCA Inventory  
 OTHER TSCA ISSUES: Substance of unknown or variable composition

**SARA TITLE III/CERCLA**

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u>	<u>WEIGHT %</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPO (lb)</u>
Creosote	100 %	1	None

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802], State Emergency Response Commission and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: Immediate, Delayed, Fire

**SARA 313 TOXIC CHEMICALS:**

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

<u>INGREDIENT NAME</u>	<u>WEIGHT %</u>	<u>COMMENT</u>
Creosote	100%	de minimus concentration is 0.1 %

**STATE RIGHT-TO-KNOW**

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<u>INGREDIENT NAME</u>	<u>WEIGHT %</u>	<u>COMMENT</u>
None		

**ADDITIONAL REGULATORY INFORMATION:** For some applications, Creosote is also regulated as a "Restricted Use" pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

**MATERIAL SAFETY DATA SHEET**  
**CREOSOTE**

WHMIS CLASSIFICATION (CANADA): Class D, Division 2, Subdivision A, very toxic material

FOREIGN INVENTORY STATUS: Listed on the EINECS Inventory - ID# 2322875  
Listed on Canadian Inventory Domestic Substance List (DSL)

**16. OTHER INFORMATION**

CURRENT ISSUE DATE: April 1996  
PREVIOUS ISSUE DATE: April 1991

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Updated DOT transportation information  
Updated to include 16-section ANSI format for Material Safety Data Sheets

OTHER INFORMATION: NFPA Hazard Ratings:  
Health (Blue): 2  
Flammability (Red): 2  
Reactivity (Yellow): 0

**REFERENCES:**

1. ACGIH (1995): "1995-1996 Threshold Limit Values ....."
2. USDOL/OSHA General Industry 29 CFR 1910.1000 Coal Tar Pitch Volatile (CTPV) Permissible Exposure Limit
3. USEPA 40 CFR Parts 112; 261; 268; 300
4. USDOT 49 CFR Part 172
5. USEPA (1986): "Evaluation of the Potential Carcinogenicity of Creosote (8001-58-9)", Prepared by the Carcinogen Assessment Group, Office of Health and Environmental Assessment, Washington, DC for the Office of Emergency and Remedial Response and the Office of Solid Waste and Emergency Response, Washington, DC
6. National Fire Prevention Association (1991): "Fire Protection Guide on Hazardous Materials", 10th ed. NFPA:Quincy, MA, pg 325M-29, 491M.
7. USEPA (1980): "Health and Environmental Effects of Creosote", EPA # 53, pg: 53-12
8. Clayton & Clayton, eds. (1981): "Patty's Industrial Hygiene & Toxicology, Volume 2A, 2B, 2C Toxicology", 3rd ed. John Wiley & Sons, New York, NY
9. NIOSH (1977): "Criteria for a recommended standard...Occupational Exposure to Coal Tar Products", USDHEW/NIOSH Publication # 78-107
10. Poel, W.E. and Kammer, A.G. (1957): "Experimental carcinogenicity of coal-tar fractions: The carcinogenicity of creosote oils" J NATL CANCER INST 18(1):41-55
11. Roe, F.J.C., Bosch, D., Boutwell, R.K. (1958); "The carcinogenicity of creosote oil: The induction of lung tumors in mice" CANCER RES 18:1176-1178
12. Bos, R.P., Hulshof, C.T.J., Theuws, J.L.G., Hendershon, P.Th. (1983); "Mutagenicity of creosote in the *Salmonella/microsome assay*" MUT RES 119:21-25
13. FEDERAL REGISTER (1978), Vol 43 #200; October 18th, page 48199
14. IARC (1987): "Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man", World Health Organization (WHO):Geneva p 57 177
15. NTP (1994): "National Toxicology Program's 7th Annual Report on Carcinogens 1994-Summary"

## SHIPPER PROVIDED SHORT FORM BILL OF LADING

Original - NOT NEGOTIABLE

Page 1 of (1).

Carrier's Pre No. \_\_\_\_\_  
 Shipper's Bill of Lading No. 34298  
 Consignee's Reference/PO No. KMG 28516  
 Carrier's Code (SCAC) BKXC

Carrier Name BULK EXPRESS, INC.  
 Street 610-131ST PLACE City HAMMOND State IN Zip 46320

RECEIVED,  
 From KMG BERNUTH Date 02/23/2001  
 Street 19TH & EDWARDSVILLE ROAD City GRANITE CITY State IL Zip 62040

The property described below, is apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. All parties hereto and their assigns are familiar with, and agree that this bill of lading is subject to (1) the terms and conditions of the Uniform Straight Bill of Lading as set forth in the National Motor Freight Classification; and (2) the individually determined rates or contracts agreed upon in writing between the carrier and shipper, if applicable, otherwise the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request, which are in effect on the date of the shipment.

Consigned to MISSOURI TIE & TIMBER  
 On Collect on Delivery Shipments, the letters "COD" must appear before consignee's name.

Destination Street \_\_\_\_\_  
 City ELLINGTON State MO Zip 63638

Route 0 DAY DELIVERY TIME (CPU) Container \_\_\_\_\_

Freight Terms \_\_\_\_\_ Ship By Date 02/26/2001

Additional Shipment Information \_\_\_\_\_ Delivery By Date 02/26/2001

No. Package	Kind of Package	Description of Articles, Special Marks and Exceptions (Subject to correction)	Weight (Subject to Correction)	UOM	G/N
1	T/L	RQ Environmentally hazardous substance, liquid, n.o.s., (Contains Coal Tar & Creosote), 9, UN3082, PG III. Marine Pollutant (Contains Coal Tar & Creosote) Shipper's Reference: 101384 - P2 Solution Shipper's Delivery Number: 80042007 KMG 28516 SHIP FROM GRANITE CITY DELIVER 2/26/01 BETWEEN 8AM & 4PM Tankcar / truck number: Ship Date: GROSS <u>74800</u> TARE <u>27680</u> NET <u>46320</u>	<u>45320</u>		

Freight charges are PREPAID  
 unless marked collect.  
 CHECK BOX IF COLLECT ☐

## FOR FREIGHT COLLECT SHIPMENTS:

If this shipment is to be delivered to the consignee, without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Consignor \_\_\_\_\_

## FOR PAYMENT OF PREPAID BILLS, SEND TO:

**KMG Bernuth**  
 Carrie Danielson  
 10611 Harwin Drive  
 Suite 402  
 Houston, TX 77036  
 TEL (713) 988-9252 x 101  
 FAX (713) 777-0314

NOTE (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding \$2.15 per pound."

Notify if problem on route or at delivery \_\_\_\_\_  
 (for informational purposes only)

Shipper KMG BERNUTH Carrier \_\_\_\_\_  
 Per \_\_\_\_\_ Per \_\_\_\_\_ Date \_\_\_\_\_

## Shipper Certification

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Per \_\_\_\_\_ Date \_\_\_\_\_

## Carrier Certification

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent document in the vehicle.

Per \_\_\_\_\_ Date \_\_\_\_\_

Received in apparent good order Exceptions Noted

Date \_\_\_\_\_

ATTACHMENT 10 Page 1 of 2

IN CASE OF  
**EMERGENCY**  
 FOR CHEMICAL EMERGENCY  
 SPILL, LEAK, FIRE  
 EXPOSURE OR ACCIDENT  
 IN ALL 50 STATES,  
 U.S. VIRGIN ISLANDS,  
 PUERTO RICO & CANADA,  
 CALL CHEMTREC - DAY OR NIGHT  
**1-800-424-9300**  
 Chemtrec Emergency International  
 Number - 1-202-483-7616



# SHIPPER PROVIDED SHORT FORM BILL OF LADING

Original - NOT NEGOTIABLE

Page 1 of (1).

Carrier Name **BULK EXPRESS, INC.**

Street **610-131ST PLACE**

City **HAMMOND**

State **IN** Zip **46320**

RECEIVED,  
From **KMG BERNUTH**

Date **02/20/2001**

Street **19TH & EDWARDSVILLE ROAD**

City **GRANITE CITY**

State **IL** Zip **62040**

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown) started, consigned and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. All parties hereto and their assigns are familiar with, and agree that this bill of lading is subject to (1) the terms and conditions of the Uniform Straight Bill of Lading as set forth in the National Motor Freight Classification; and (2) the individually determined rates or contracts agreed upon in writing between the carrier and shipper, if applicable, otherwise the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request, which are in effect on the date of the shipment.

Consigned to **MISSOURI TIE & TIMBER**

On Collect on Delivery Shipments, the letters "COD" must appear before consignee's name.

Destination Street

City **ELLINGTON**

State **MO** Zip **63638**

Rate **0 DAY DELIVERY TIME (CPU)**

Container

Ship By Date **02/21/2001**

Freight Terms

Delivery By Date **02/21/2001**

Additional Shipment Information

No. Package	Kind of Package	Description of Articles, Special Marks and Exceptions (Subject to correction)	Weight (Subject to Correction)	UOM	G/N
1	T/L	RQ Environmentally hazardous substance, liquid, n.o.s., (Contains Coal Tar & Creosote), 9, UN3082, PG III. Marine Pollutant (Contains Coal Tar & Creosote) Shipper's Reference: 101384 - P2 Solution Shipper's Delivery Number: 80041784 KMG 28500 SHIP FROM: GRANITE CITY DELIVER BETWEEN 8AM - 4PM GROSS <b>76260</b> TARE <b>29060</b> NET <b>47200</b>	<b>47200</b>		

Freight charges are PREPAID  
unless marked collect.  
CHECK BOX IF COLLECT ☐

## FOR FREIGHT COLLECT SHIPMENTS:

If this shipment is to be delivered to the consignee, without recourse to the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Consignor

## FOR PAYMENT OF PREPAID BILLS, SEND TO:

**KMG Bernuth**

Carrie Danielson

10611 Harwin Drive

Suite 402

Houston, TX 77036

TEL (713) 988-9252 x 101

FAX (713) 777-0314

NOTE (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding **\$2.15** per **pound**."

Notify if problem on route or at delivery

(for informational purposes only)

Shipper **KMG BERNUTH**

Carrier

Per

Per

Date

## Shipper Certification

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Per \_\_\_\_\_ Date \_\_\_\_\_

## Carrier Certification

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent document in the vehicle.

Per \_\_\_\_\_ Date \_\_\_\_\_

Received in apparent good order Exceptions Noted

Date

ATTACHMENT-10 Page 2 of 2

## IN CASE OF EMERGENCY

FOR CHEMICAL EMERGENCY

SPILL, LEAK, FIRE

EXPOSURE OR ACCIDENT

IN ALL 50 STATES,

U.S. VIRGIN ISLANDS,

PUERTO RICO & CANADA,

CALL CHEMTREC - DAY OR NIGHT

**1-800-424-9300**

Chemtrec Emergency International

Number - 1-202-483-7616

TREATING CHART		Feb-01	G-GRADE	
EPA #218-136 FUNGI, INSECTS, DECAY JUNIOR FLOWERS N-1349				
DATE	DESCRIPTION	# OF TREATS	CU/FT	RET
2/1/01	398-6X8X8" GRADE, 612-6X8X8" I.G.	2	2852.84	7
2/2/01	578-6X8X8" I.G., 525-7X9X8" GR, 330-7X9X8" I.G., 50-7X9X10"	2	5029.43	7
2/3/01	350-7X9X8" GRADE, 350-7X9X8" I.G.	2	2604	7
2/4/01	700-7X9X8" GRADE	2	2604	7
2/5/01	1225-7X9X8" GRADE, 175-7X9X8" I.G.	2	5208	7
2/6/01	1008-6X8X8" GRADE, 325-7X9X8" GRADE, 375-7X9X8" I.G.	2	5458.84	7
2/7/01	398-6X8X8" GRADE, 612-6X8X8" I.G., 675-7X9X8" GRADE, 25-7X9X8" I.G.	2	5458.84	7
2/8/01	1400-7X9X8" GRADE	2	5208	7
2/9/01	1008-6X8X8" I.G., 900-7X9X8" GRADE, 500-7X9X8" I.G.	2	8080.84	7
2/10/01	1008-6X8X8" I.G.	2	2852.84	7
2/11/01	108-6X8X8" I.G., 900-6X8X8" GRADE	2	2852.84	7
2/12/01	1400-7X9X8" GRADE	2	5208	7
2/13/01	1175-7X9X8" GRADE, 38-6X8X8" I.G., 200-7X9X8" I.G.	2	5258.88	7
2/14/01	700-7X9X8" GRADE	2	2604	7
2/15/01	NO TREATS	0	0	7
2/16/01	700-7X9X8" I.G.	2	2604	7
2/17/01	700-7X9X8" GRADE	2	2604	7
2/18/01	700-7X9X8" GRADE	2	2604	7
2/19/01	700-7X9X8" GRADE, 700-7X9X8" I.G.	2	5208	7
2/20/01	144-6X8X8" GRADE, 884-6X8X8" I.G., 700-7X9X8" GRADE	2	5458.84	7
2/21/01	1008-6X8X8" I.G., 700-7X9X8" GRADE	2	5458.84	7
2/22/01	324-6X8X8" GRADE, 684-6X8X8" I.G., 700-7X9X8" GRADE	2	5458.84	7
2/23/01	864-6X8X8" GRADE, 144-6X8X8" I.G.	2	2852.84	7
2/24/01	NO TREATS	0	0	0
2/25/01	NO TREATS	0	0	0
2/26/01	NO TREATS	0	0	0
2/27/01	720-6X8X8" GRADE, 288-6X8X8" I.G., 700-7X9X8" GRADE	2	5458.84	7
2/28/01	1008-6X8X8" GRADE, 1300-7X9X8" GRADE	2	7888.84	7
TOTAL			106841.89	

TREATING CHART		Jan-01	G-GRADE	
EPA #218-136 FUNGI, INSECTS, DECAY JUNIOR FLOWERS N-1349			LG-INDUSTRIAL GRADE	
DATE	DESCRIPTION	# OF TREATS	CU/FT	RET
1/26/01	100-7X9X10', 432-6X8' I.G., 700-7X9X8' 6" GRADE, 396-6X8X8' 6" GRADE	2	5524.74	7
1/27/01	432-6X8X8' 6" I.G., 576-6X8X8' 6" GRADE	2	2852.64	7
1/28/01	108-6X8X8' 6" I.G., 900-6X8X8' 6" GRADE	2	2852.64	7
1/28/01	1008-6X8X8' 6" GRADE, 700-7X9X8' 6" GRADE	2	5456.64	7
1/29/01	1008-6X8X8' 6" GRADE, 700-7X9X8' 6" GRADE	2	5456.64	7
1/30/01	576-6X8X8' 6" GRADE, 432-6X8X8' 6" I.G.	2	2852.64	
1/31/01	612-6X8X8' 6" GRADE, 396-6X8X8' 6" I.G.	2	2852.64	
TOTAL			113708.71	



**RINECO**

*Total Waste Management*

413 North 4th Street • Dupo, Illinois 62239

618-286-3191

*jsparks@rineco.com*

Quote: 10,733

## QUOTATION FOR DISPOSAL

March 02, 2001

David Brawley  
Missouri Tie & Timber  
P.O. Box 730 Highway 72 West  
Reynolds, MO 63666

Thank you for considering Rineco Chemical as your waste management company. Based on the information provided, Rineco is pleased to offer the following quotation for your approval. The disposal price is based on 55-gallon steel drums unless otherwise noted. Prices subject to change with 30 day notice.

<u>Control #</u>	<u>Waste Name</u>
0103-02067	Creosote Contaminated Soil & Debris

The following are RINECO's Waste Category Codes (WCC) with a brief definition and the disposal price for material at that consistency. The WCC listed above is based on the information provided on the waste profiles. If the material arrives in any other consistency than what is quoted, please refer to the pricing schedule below.

<u>WCC</u>	<u>Waste Consistency</u>	<u>Disposal Price</u>	<u>Low BTU*</u>
L1	Thin Liquid - No Settled Solids. Solvent to oil viscosity. <i>Examples: paint thinner, motor oil.</i>	\$55.00	\$105.00
D1	High viscosity liquid can contain some settled or suspending solids; up to 50% settled solids in a drum. <i>Examples: paint, honey, molasses, grease, ink, spent solvents with settled solids.</i>	\$90.00	\$135.00
D2	Dispersible solids that contain 50% or greater solid content in a drum.	\$110.00	\$135.00
DS	Dispersible solid containing NO LIQUIDS. Dry crumbly solid. <i>Examples: k-waste, pigment dust.</i>	\$110.00	\$135.00

S1	Solid material - metal free - glass free. Dry solid material that contains no metal debris or glass. <i>Examples: dry rags, dry filters, dry paper.</i>	\$0.50/lb \$125 min	\$0.60/lb \$125 min
S2	All other solids. <i>Examples: metal cans, paint solids, oil dry, saturated debris, wet rags, wet filters, wet paper.</i>	\$0.50/lb \$125 min	\$0.60/lb \$125 min
NH	Non Hazardous Solid Material	\$0.35/lb. \$90 min	

\* Material containing less than 5,000 Btu per pound is considered Low Btu.

**Transportation Charges:**

Per Drum Rate	\$30.00
Less than 10 drums	\$300.00

\*Until the national fuel crisis subsides, Rineco has implemented a fuel surcharge based on the National Average Diesel price as published by the U.S. Department of Energy. For your reference, the matrix for the applicable fuel surcharge percentage is attached. Please note, the prices above do not reflect this surcharge.

**Additional Charges:**

Over Packs	\$25.00
Poly Drums	\$25.00 (Hazardous Only)

At no extra charge, RINECO will prepare manifest and labels, which will be shipped overnight. We appreciate the opportunity to service your waste disposal needs. If you have any questions, please call 800-377-4692.

Jim Sparks

*Jim Sparks*  
Midwest Territory Manager  
JS:gj

**National Average  
Diesel Fuel Price**

**Fuel Surcharge  
Percentage**

\$1.20 - \$1.24	0%
\$1.25 - \$1.29	1%
\$1.30 - \$1.34	3%
\$1.35 - \$1.39	5%
\$1.40 - \$1.44	7%
\$1.45 - \$1.49	8%
\$1.50 - \$1.54	9%
\$1.55 - \$1.59	10%
\$1.60 - \$1.64	11%
\$1.65 - \$1.69	12%
\$1.70 - \$1.74	13%
\$1.75 - \$1.79	14%
\$1.80 - \$1.84	15%
\$1.85 - \$1.89	16%
\$1.90 - \$1.94	17%
\$1.95 - \$1.99	18%
\$2.00	19%

**This schedule is subject to change dependent upon the transportation industry.**

Rineco will review the National Average Diesel Fuel Price with the U.S. Department of Energy on the last business day of each month. If you would like to check the rate, the number for the U.S. Department of Energy Hotline is 202-586-6966. The fuel surcharge percentage will be adjusted for the following 30 days based on the quoted price. For example, if the average fuel price for September 30<sup>th</sup> is \$1.55, the surcharge percentage until October 30<sup>th</sup> is 10%. The date the shipment is picked up at your facility will be the date recorded for the surcharge.

Facility: Missouri Tie & TimberDate: 3/7/01

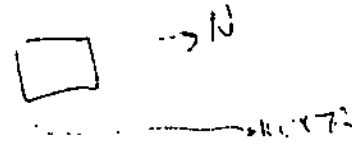
Arrival time: \_\_\_\_\_

**DRIVE-BY**

1. Drive-by conducted from public right-of-way? ☒ Yes ☐ No
2. Determine the direction "North" with respect to the facility and provide a brief sketch of the layout and orientation (as can be viewed from the public right-of-way): →
3. Obvious concerns visible from public right-of-way (photos)? ☐ Yes ☒ No

**Facility Orientation**

- |                   |                       |                        |
|-------------------|-----------------------|------------------------|
| - Containers      | - Tanks               | - Processing Equipment |
| - Loading Areas   | - Unloading Areas     | - Security Devices     |
| - Open Drums      | - Stressed Vegetation | - Unusual Staining     |
| - Unusual Odors   | - Obvious Discharges  | - Improper Disposal    |
| - Safety Concerns | - Other Concerns      |                        |

**SITE ENTRY AND INBRIEFING**

1. ☒ Used main entrance ☒ Entered during normal operating hours ☐ Excessive delays (>15 minutes - denial of access?) - ☒ No
2. Facility Representative(s): Junior Flowers Title: Part-Owner
3. Does representative have intimate knowledge of all waste management practices? ☐ Yes ☐ No How long in position? \_\_\_\_\_
4. Introduction: except paper work says Dave Brown is handling
- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Presented credentials   | <input checked="" type="checkbox"/> Explained responsibility to provide accurate information and provided copies of Section 1001 and 1002 U.S.C. to facility |
| <input checked="" type="checkbox"/> Verified presence at correct facility (checked address/I.D. #)                            | <input checked="" type="checkbox"/> Identified personal safety considerations:   |
| <input checked="" type="checkbox"/> Explained authority to conduct inspection (Section 3007 of RCRA)                          | <input checked="" type="checkbox"/> Completed Multimedia screening checklist   |
| <input checked="" type="checkbox"/> Explained the purpose, scope, and order of the inspection                                 | <input checked="" type="checkbox"/> Provided SBREFA handout  |
| <input checked="" type="checkbox"/> Explained documentation process - worksheets, checklists, photo's, notes, statements, etc | <input checked="" type="checkbox"/> Obtained GPS reading   |
| <input checked="" type="checkbox"/> Explained facility's right to claim CBI   |  |
5. Was full access granted? ☒ Yes ☒ By facility representative Other (name): \_\_\_\_\_
- ☐ No - Access denied Name of person denying access: \_\_\_\_\_ Time of denial: \_\_\_\_\_
- Reason for denial, or limitations placed on access: \_\_\_\_\_

**EXIT BRIEFING**

1. Reviewed all data collected and documented all concerns or violations? ☒ Yes ☐ No
- Location of the violation, type and amount of waste involved, time frame, frequency, specific dates & when first started occurred
- Illegal units - unit location (diagram/picture), dimensions, conditions, construction material, gradient of the base (for spills), other information.
- Illegal disposal - how, when (each occurrence), where sent or disposed of, how shipped, who shipped, when shipped/disposed of, quantity
- N/A ☒ Identified/verified violations from previous inspection were corrected (if applicable)
- ☐ Addressed all unresolved inspection related issues left a list of additional info
- ☐ Summarized findings and observations for the facility representatives
- NOV issued? ☒ Yes ☐ No ☐ Violations clearly identified and explained, including: circumstances, location, and applicable regulations
- ☒ Explained the importance of a timely (14 day) and adequate response
- ☒ Explained that findings and observations are based on your current knowledge of RCRA and that the final findings may differ
- ☒ Explained that compliance officer will make the final compliance decisions and that all compliance questions should be directed toward them
- ☒ Explained that recommendations provided are for informational purposes only and DO NOT require specific actions by the facility
- ☒ Provided facility with CBI form
- ☒ Prepared Document Receipt form
3. Specific information requested from facility? ☒ Yes ☐ No left list
4. Facility appears to have awareness of RCRA regulations and/or has its own environmental staff? ☒ Yes ☒ No as shall unit in detail areas
5. Facility has copy of applicable regulations? ☐ Yes ☐ No Dave handled paper
6. Attitude and demeanor of facility representative(s): ☒ OK ☐ Not OK

Missouri Tie & Timber  
Reynolds, MO  
3/7/01

Enclosure to  
Attachment B

Compliance Incentive Program Disclosure Form  
Wood Treatment Facility Sector  
Revision No.: 0  
Revision Date: 11/8/00

### GENERAL INFORMATION

1. Do you want to participate in the Compliance Incentive Program? N/A Yes        No         
If no, why not?

2. Please provide the following information concerning the facility:

- What is the current name of the facility? MO Tie & Timber
- When did the facility begin operations? 21999
- Has the facility ever had any other names? Yes        No ✓
- If yes, please provide the names and the dates that the facility operated under those names.

3. Please provide the following information concerning the location of the facility:

- Street address (911 emergency location) HWY 72  
Reynolds, MO 63666
- Directions from the nearest major intersection, town, etc.

4. Does your facility have an EPA identification number? Yes        No ✓ If so, please indicate the EPA identification number.

5. Please provide the names and addresses for the present and previous owners of the facility if different than your previous answers.

- Present owner(s) Junior Flowers & Dave Brawley

MO Tie & Timber own some of the land the facility occupies  
and Brawley & Flower own other parts of it



- Previous owner(s) \_\_\_\_\_

6. Please provide the names and addresses for the present and previous operators of the facility.

- Present operator(s) same

- Previous operator(s) same

7. Please provide the following information concerning the person(s) who is filling out this form:

- name(s) N/A

- title(s) \_\_\_\_\_

- years employed at the facility \_\_\_\_\_

8. Please provide the following information concerning any past facilities that you have either owned or operated:

- Street address (911 emergency location) Sector Tie in  
Ellington, MD

- Directions from the nearest major intersection, town, etc. \_\_\_\_\_

- EPA identification number? Yes \_\_\_\_\_ No \_\_\_\_\_. If so, please indicate the EPA identification number. MD D 08 06 036 84

although it is not clear how  
the facility obtained this ID#

Page 2 of 8

9. Please attach a hand-drawn map, a scale map, diagram, engineering plan, and/or aerial photograph of the facility to your reply. *see previous insp. reports*

**DESCRIPTION OF FACILITY'S WOOD TREATMENT PROCESS.**

1. Please indicate the types of preservative (chemicals) that are being used or have been used in the past at your facility. Please checkmark all that apply. CCA  
pentachlorophenol (penta, PCP) ☒ creosote other (please list)
2. Please indicate the dates you began using each type of preservative and when you stopped using the preservative at your facility. N/A
3. Please provide a brief description of the treatment process you use at your facility.  
see insp. report
4. If the treatment process that you described in your previous response has changed, please describe the changes that have taken place.

N/A

5. Are the treatment tanks contained in any way? ☒ Yes ☐ No If yes, please describe. \_\_\_\_\_

6. Is any wood dried in the retort prior to treatment? ☐ Yes ☒ No If yes, please describe the process. \_\_\_\_\_

#### DRIP PAD

1. Do you have a drip pad at your facility? ☒ Yes ☐ No Indicate the location on the map. \_\_\_\_\_

2. If you do not have a drip pad, where is the wood placed after it is treated? N/A

3. Please indicate how long treated wood is left on the drip pad or other locations at your facility. 12 to 24 hrs

4. If you have a drip pad, it is constructed of: ☐ wood ☒ concrete ☐ steel  
☐ other (please describe) \_\_\_\_\_

5. Prior to construction of the drip pad, what was the drip pad area(s) used for? Please describe. Farm land

6. Is the drip pad covered or inside a building? ☒ Yes ☐ No Describe. \_\_\_\_\_

### STORAGE YARD

1. Do you have a storage yard for treated wood/lumber? ☒ Yes ☐ No
2. Where is the storage yard located? Please indicate on the map. see Figure 1  
Wood is stored in T-Bldg (covered pad) or on gravel

### WASTE MANAGEMENT

1. What types of residues are or have been generated at your facility? Please checkmark all that apply. see report
- |  |   |  |
|--|---|--|
| <input type="checkbox"/> sludge          | <input type="checkbox"/> scrap banding            | <input type="checkbox"/> splinters           |
| <input type="checkbox"/> end tags        | <input type="checkbox"/> saw dust                 | <input type="checkbox"/> sand                |
| <input type="checkbox"/> dirt            | <input type="checkbox"/> stones                   | <input type="checkbox"/> wood chips          |
| <input type="checkbox"/> drippage        | <input type="checkbox"/> waste water              | <input type="checkbox"/> protective clothing |
| <input type="checkbox"/> retort exhaust  | <input type="checkbox"/> Waste treatment chemical |  |
| <input type="checkbox"/> unused chemical | <input type="checkbox"/> other                    |  |
2. Are any wastes or other materials that have been burned at your facility? If so, please identify the wastes or materials burned. NO treated wood burned  
Saw Dust in boiler is burned
3. On the facility map that you are providing in your response, please indicate the locations of where wastes or materials are burned. See Figure 1 for location  
says no other
4. Please indicate the time frame that materials were burned at the facility. at boiler <sup>has</sup> always been used w/ saw dust

5. Has there ever been a fire at your facility? If so, please indicate the date(s) of the fire and the material or building that burned and the location of the fire on the map that you are providing with your response. 52 mg wood sawdust pile

6. Have you ever cleaned out your retort? Yes ☒ No If yes, what were the dates that you cleaned out your retort and where did the waste go? Scheduled to be cleaned next week by Kinco

7. Have you ever cleaned your drip pad? Yes ☐ No If yes, what were the dates that you cleaned your drip pad and where did the waste go? 7/8

Just squeezed, no needed

8. Have you ever cleaned out your tanks? Yes ☒ No If yes, what were the dates that you cleaned out your tanks and where did the waste go? Please indicate which tanks were cleaned out. Scheduled next week

9. Have you ever cleaned up debris such as wood chips, sawdust, packaging materials, etc. Yes ☒ No Please indicate the dates and types of materials cleaned up and where did the waste go?

10. Have you ever dug up any soils where treatment chemicals may have been spilled, leaked, or disposed? Yes ☒ No If yes, what were the locations and dates that you dug up the soils and where did these soils go?

## PONDS/DITCHES/STREAMS

1. Please indicate if you have had any of the following features at your facility (indicate past or present). Please checkmark all that apply..

<input checked="" type="checkbox"/> ponds	<input type="checkbox"/> ditches	<input type="checkbox"/> impoundments
<input type="checkbox"/> streams	<input type="checkbox"/> sumps	<input type="checkbox"/> holes in the ground (depressions)
<input type="checkbox"/> septic system	<input type="checkbox"/> basement	<input type="checkbox"/> storm water collection area
<input type="checkbox"/> pools	<input type="checkbox"/> other	<u>lagoon for office</u>

2. Have you placed or are you currently placing wood treatment chemicals in, or do these wood treatment chemicals end up in the following:

<input type="checkbox"/> ponds	<input type="checkbox"/> ditches	<input type="checkbox"/> impoundments
<input type="checkbox"/> streams	<input type="checkbox"/> sumps	<input type="checkbox"/> holes in the ground (depressions)
<input type="checkbox"/> septic system	<input type="checkbox"/> basement	<input type="checkbox"/> storm water collection area
<input type="checkbox"/> pools	<input type="checkbox"/> other	

## TANKS

1. What types of tanks do you have at your facility? Please checkmark all that apply. Please also mark the locations of each tank on the facility map that you are providing with your response.

<input type="checkbox"/> waste tank	<input type="checkbox"/> storage tank	<input type="checkbox"/> working tank
<input checked="" type="checkbox"/> product tank	<input type="checkbox"/> diesel tank	<input type="checkbox"/> railcar tank
<input type="checkbox"/> waste water treatment tank		<input type="checkbox"/> Cisterns
<input type="checkbox"/> Other (please describe)	<u>Tanks are used to collect creosote waste</u>	

## CONTAINERS

1. Are containers (drums) used for storage at the facility? ☒ Yes ☐ No  
new & good fails
2. *Rec report* If yes, please indicate the types of wastes or materials that are stored in the containers (drums). Please checkmark all that apply. *process residue*

<input type="checkbox"/> sludge	<input type="checkbox"/> scrap banding	<input type="checkbox"/> splinters
<input type="checkbox"/> end tags	<input type="checkbox"/> saw dust	<input type="checkbox"/> sand
<input type="checkbox"/> dirt	<input type="checkbox"/> stones	<input type="checkbox"/> wood chips
<input type="checkbox"/> drippage	<input type="checkbox"/> waste water	<input type="checkbox"/> protective clothing
<input type="checkbox"/> retort exhaust	<input type="checkbox"/> waste treatment chem.	<input type="checkbox"/> unused chemicals
<input type="checkbox"/> other		

## WATER

1. What is the source of drinking water at the facility? Please checkmark all that apply.
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> city water (describe)  | <input type="checkbox"/> rural water (describe) | <input type="checkbox"/> bottled water           |
| <input checked="" type="checkbox"/> onsite well | <input type="checkbox"/> onsite spring          | <input type="checkbox"/> other (please describe) |

*both = 300' <sup>office</sup> well ; 2 wells one near <sup>office</sup> boiler*

2. Are there any water wells onsite? ☒ Yes ☐ No. What are these wells used for?

*Drinking water*

## RECORDS

1. Do you keep any records? ☒ Yes ☐ No *see insp rept*
2. What types of records do you keep? Please checkmark all that apply. *will send after insp. see rept*
- |  |  |  |
|--|--|--|
| <input type="checkbox"/> treatment logs          | <input type="checkbox"/> manifests                   | <input type="checkbox"/> preservative usage  |
| <input type="checkbox"/> drip pad cleaning log   | <input type="checkbox"/> drip pad inspection log     | <input type="checkbox"/> contingency plan    |
| <input type="checkbox"/> training records        | <input type="checkbox"/> drip pad certification      | <input type="checkbox"/> test results        |
| <input type="checkbox"/> waste removal           | <input type="checkbox"/> tank inspection log         | <input type="checkbox"/> container insp. log |
| <input type="checkbox"/> drippage inspection log | <input type="checkbox"/> storage yard inspection log |  |
| <input type="checkbox"/> preservative purchases  | <input type="checkbox"/> other                       |  |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

REC'D

OCT 25 2000

OCT 26 2000

RESP

MEMORANDUM

SUBJECT: Revision of Generic QAPP for RCRA Compliance Sampling at Wood Treatment Facilities, QAO#2001-015—Approved

FROM: Diane Harris  
Acting Regional Quality Assurance Manager  
DISO/ENSV

TO: Kevin Snowden, RESP/ARTD  
Dedriel Newsome, ARCM/ENSV

As requested, we reviewed the subject document, dated October 2000, for compliance with the *EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations*, EPA QA/R-5, November 1998.

Based on the comment presented below, the document is approved. The document was found to address the key issues satisfactorily. If the procedures outlined in the plan are followed, the data resulting from the collection activity should be usable.

**Comment**

1. Section B2.1, Sediment: This section references SOP 4230.17A for Surface Water Sample Collection. Kevin indicated that this was the incorrect reference, and should be SOP No. 4230.8A for Sediment Sample Collection, as described in Section B.2.

If you have any questions, please contact me at x7258 or Margie St. Germain at x7209.  
RQAO Document Number: 2001-015





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

**MEMORANDUM**

SUBJECT: Revision of Generic QAPP for RCRA Compliance Sampling at Wood Treatment Facilities

FROM: Kevin D. Snowden, Wood Treatment Sector Coordinator  
RCRA Enforcement and State Programs Branch

THRU: Dedriel Newsome, Environmental Engineer  
Air and RCRA Compliance and Monitoring Branch

THRU: Cecilia Tapia, Chief *for 10/14/2000*  
RCRA Enforcement and State Programs Branch

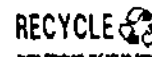
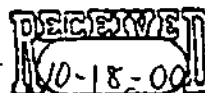
THRU: Betty Berry, Chief *Berry*  
Air and RCRA Compliance and Monitoring Branch

TO: Ernest L. Arnold, Regional Quality Assurance Manager  
Quality Assurance Office

Attached is Revision No. 2 of the Generic Quality Assurance Project Plan (QAPP) for RCRA Compliance Sampling at Wood Treatment Facilities, dated March 2000. This QAPP is a revision of the Generic QAPP for RCRA Compliance Sampling at Wood Treatment Facilities dated November 1999 (Revision 0) that was conditionally approved on November 18, 1999.

The following changes have been made.

- ✓1. A3, A4, and Appendix A - The RESP Branch Chief has changed from JoAnn Heiman to Cecilia Tapia.
- ✓2. A3, A4, and Appendix A - The RLAB Branch Chief has changed from Andrea Jirka to Dale Bates.
- ✓3. A5 - Change the fiscal year and number of facilities to be inspected. Also included a discussion of when PAH would be a concern and when dioxin would be a concern.
- ✓4. A6 - Added PAH analysis at creosote facilities and dioxin analysis of ash. Also, included sediment sampling and analysis.
5. A7 - Added PAH analysis at creosote facilities and dioxin analysis of ash. Also, included sediment sampling and analysis.




6. **A7.1.2** - The sentence. "Representativeness will also not be an issue during sampling of soil, sediment, groundwater, and surface water, as the data will be used to identify the presence and not the extent of the hazardous constituents of concern." replaces the sentence "Representativeness will also not be an issue during sampling of soil, groundwater, and surface water, as the data will be used to identify the presence and not the extent of the hazardous constituents of concern."
7. **B1.2.1** - Added a paragraph on ash generation.
8. **B1.2.2** - Added the sentence, "If the spill is in a wood preserving management area (such as the treatment area or the storage yard), then a grab sample may be randomly collected as opposed to a composite if the sample will be used to confirm waste content."
9. **B1.2.3** - Included sediment by changing the sub-title and the sentence, "In the event that the release of the waste stream resulted in the pooling or ponding of water, a surface water and sediment sample will be collected from the pool or pond where attainable." replaces the sentence "In the event that the release of the waste stream resulted in the pooling or ponding of water, a sample will be collected from the pool or pond."
10. **B2** - Changed the Surface Water Collection SOP No. from 2334.7A to 4230.17A. Also added SOP No. 4230.8A for Sediment Sample Collection.
11. **B2.1** - The paragraph, "Surface Water: Grab samples will be collected from surface water as outlined in R7 ENSV SOP No. 4230.17A "Surface Water Sample Collection" where attainable. If not attainable, then a grab sample will be randomly collected from the area that is attainable." replaced paragraph "Surface Water: Grab samples will be collected from surface water as outlined in R7 ENSV SOP No. 2334.7A "Surface Water Sample Collection" where attainable. If not attainable, then a grab sample will be randomly collected from the area that is attainable. Also, added a paragraph on sediment sampling.
12. **Appendix C** - Added PAH analysis for creosote facilities, added dioxin analysis for ash samples and added sediment samples to Waste Spill Areas. Also added drinking water herbicide analysis for PCP MCLs and noted that MCLs should be requested on the ASRs.

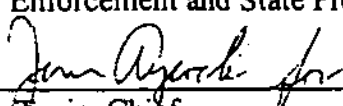
Also, for your convenience, a redlined copy of the revised QAPP is attached for ease of reviewing specific changes.

Quality Assurance Project Plan  
for  
RCRA Compliance Sampling  
at  
Wood Treatment Facilities

Prepared By  
Kevin Snowden  
October 2000

  
Kevin Snowden, Wood Treatment Sector Coordinator  
RCRA Enforcement and State Programs Branch

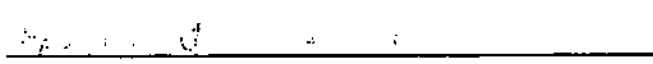
10-18-00  
Date

  
Cecilia Tapia, Chief  
RCRA Enforcement and State Programs Branch

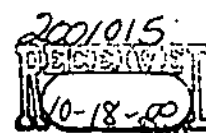
10/18/2000  
Date

  
Betty Berry, Chief  
Air, RCRA, and Compliance Monitoring Branch

10/18/00  
Date

  
Ernie Arnold, Regional Quality Assurance Manager  
Data Integrations and Support Operations Branch

                      
Date



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### A3. DISTRIBUTION LIST

EPA Region VII:     ARCM RCRA Inspectors  
                          Betty Berry, ARCM Branch Chief  
                          Lynn Slugantz, RESP Enforcement Team Leader  
                          Kevin Snowden, Wood Treatment Sector Coordinator  
                          Ernie Arnold, Regional QA Manager  
                          Dale Bates, RLAB Manager

### A4. PROJECT/TASK ORGANIZATION

The Project Organizational Chart is included as Appendix A. The individuals directly involved with these sampling projects and their specific responsibilities are outlined below.

ARCM RCRA Inspectors - Will serve as project managers for these sampling projects (one individual per sampling project). As project managers, they will direct, coordinate and implement the field activities. They will also implement, perform, and coordinate sampling operations. In addition, the project manager will review, document and ensure that the sampling activity is conducted in accordance with this QAPP. The ARCM RCRA Inspectors will be responsible for providing ENSV a table for the analyses/matrices, the site-specific Analytical Services Request (ASR) form, and site-specific Sampling Supplies Request (SSR) form. The project manager will ensure QAPP implementation and document any deviations from this QAPP. The project manager will also participate in the sample collection process, with the additional assistance of one or more ARCM RCRA Inspectors and/or RESP Compliance Officers. These individuals will be designated as project assistants.

Field Staff - Will serve as project assistants and assist the project manager during the collection and documentation of samples. Field staff will also be familiar with this QAPP and all available site information, including the potential hazards at the site.

Betty Berry, ARCM Branch Chief - Responsible for the overall coordination and decisions for the sampling projects and for assigning project managers. Reviews and approves this QAPP and any subsequent revisions in terms of expanding or limiting the project scope and objective.

Cecilia Tapia, RESP Branch Chief - Responsible for overall targeting and scheduling of wood treatment facility inspections covered by this QAPP. Assigns RESP Compliance Officers to the facilities scheduled for inspection.

RESP Compliance Officers - Responsible for providing available site-specific information prior to each sampling project, and for informing the ARCM Branch Chief and/or the Wood Treatment Sector Coordinator of any changed project data needs.

RESP Wood Treatment Sector Coordinator - Responsible for authoring and revising this QAPP. Informs ARCM personnel of changed project data needs.

Ernie Arnold, Regional Quality Assurance Manager - Responsible for the review and approval of this QAPP and any subsequent revisions in terms of quality assurance aspects.

Dale Bates, Regional Laboratory Branch Chief - Responsible for the coordination and scheduling of lab analyses, data review and data validation.

#### A5. PROBLEM DEFINITION/BACKGROUND

During FY2001, EPA Region VII will be conducting RCRA compliance evaluation inspections (CEIs), including sampling as a component, at approximately 13 wood treatment facilities in the region's four States of Iowa, Kansas, Missouri and Nebraska. Most of the wood treatment facilities are located in Missouri. Most of these facilities are small, employing fewer than 20 persons. Many of these facilities have not notified EPA and/or the authorized state that they generate regulated quantities of hazardous waste, and little to no file information is available. The purpose of these inspections is to obtain independent evaluations of the facilities' compliance with RCRA. In particular, EPA will be focusing on the validity of the facilities' hazardous waste determinations, the appropriateness of the facilities' management practices with regard to their wood treatment waste streams, and the environmental impact of their waste management practices.

There are two basic types of preservative processes utilized at wood preserving facilities; those that use oil-borne preservatives (creosote, pentachlorophenol, and copper naphthenate) and those that use water-borne preservatives (ammoniacal copper arsenate, chromated copper arsenate, oxine copper, ammoniacal copper zinc arsenate, acid copper chromate, borates, ammoniacal copper quat). The primary focus of these inspections will be facilities that utilize the pentachlorophenol (PCP), creosote, and chromated copper arsenic (CCA) treatment processes, although facilities that utilize other wood treatment processes may also be inspected. It should be noted that the creosote preservative used, may be a coal tar creosote that is a mixture of 2,3, and 4-ringed polynuclear aromatic hydrocarbons (PAH) as opposed to cresol. Wastes that are typically generated at wood treatment facilities include wood preserving waste waters, spent preservatives, preservative drippage, and process residuals. Also, some wood treaters may burn wood on-site. If any PCP treated wood is burned, then there would be a dioxin concern as it is a byproduct of PCP combustion.

A variety of waste management practices will also be encountered, including storage (containers, tanks, sumps, and/or drip pads), recycling, and both on-site and off-site disposal. Areas of spillage are also likely to be found during these inspections.

There are several potential waste codes associated with waste streams at wood treatment facilities. Depending on the wood treatment process utilized at the facility, RCRA-listed and/or characteristic wastes may be generated. Potential RCRA characteristic waste codes associated with wastes at wood treatment facilities may include:

- D002 (corrosive),
- D004 (arsenic),
- D007 (chromium),
- D008 (lead),
- D023 (o-cresol),
- D024 (m-cresol),
- D025 (p-cresol),
- D026 (cresol), and
- D037 (PCP).

Potential RCRA listed waste codes associated with wastes at wood treatment facilities may include:

- F027 (discarded unused formulations containing PCP),
- F032 (waste waters, process residuals, preservative drippage, and spent formulations from wood preserving processes at facilities that currently use or have previously used chlorphenolic formulations),
- F034 (waste waters, process residuals, preservative drippage, and spent formulations from wood preserving processes at facilities that use or used creosote formulations),
- F035 (waste waters, process residuals, preservative drippage, and spent formulations from wood preserving processes at facilities that use or inorganic formulations containing arsenic or chromium),
- K001 (bottom sediment sludge from the treatment of waste waters from wood preserving processes that use creosote and/or pentachlorophenol), and
- U051 (off-specification commercial chemical product-creosote).

Even though some of the wood treatment facilities may have analyzed some or all of their waste streams at some time in the past, sampling is still necessary to ensure the accuracy of their waste determinations and to ensure that determinations have been made on fully representative samples.



## A6. PROJECT/TASK DESCRIPTION

The objective of these sampling projects is to determine whether (1) the facility is in compliance with RCRA, (2) the facility is not in compliance with RCRA which will require compliance/enforcement response to return the facility to compliance, or (3) the facility must further monitor and analyze its waste streams, waste management units, soils, sediment, groundwater and/or surface water. To make these determinations, samples will be collected at the facilities and the resulting data compared to the applicable action levels. However, the PAH and dioxin data will be used to identify the presence and not the extent of the hazardous constituents of concern. Therefore, there will be no action levels, although any detection of these constituents will be used to make these determinations.

Waste and environmental samples will be collected at each facility. Media sampled may include wastes, soils, surface water, sediment, and/or groundwater. Typical analyses expected will include Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOC), TCLP semi-volatile organic compounds (SVOC), TCLP metals, corrosivity (pH), and flashpoint (ignitability). Also, total PAH, a subset of SVOC, will be included when creosote is a concern and total dioxin will be included when ash is being analyzed at PCP facilities. Any waste exceeding a regulatory threshold will be classified as a hazardous waste. Waste samples may be comprised of wastewater treatment unit sludge, sump sludge, filter sludge, wastewater, process residuals, storage yard cleanup material, discarded treated wood end (user/customer), preservative drippage, spent preservative, discarded unused preservative, ash, and/or tank clean-out bottoms. Waste samples will also be collected of any materials spilled onto the ground at waste management areas. Waste samples will not be collected for those wastes which have already been classified as hazardous by the facility, based on sample testing that the facility certifies is both current and based on representative sampling. If the facility utilizes process knowledge (as defined by 40 CFR 262.11(c)(2)), a sample will be collected of the waste stream.

Waste samples will be collected from identified waste streams to determine the accuracy of the facility's waste determination. However, in the event that a facility has made a waste determination and that the facility's waste determination indicates that the waste is listed (F027; F032, F034, F035, K001, and/or U051), a sample will not be collected. The waste samples collected will be analyzed for flashpoint (ignitability), corrosivity (pH), total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). In the event that any of the analytical results for the total analyses exceed the regulatory threshold by a factor of 20, these samples will be analyzed for TCLP VOCs, TCLP SVOCs, and/or TCLP metals. The analytical results for the characteristics of ignitability and corrosivity will be compared to the regulatory levels found in 40 CFR 261 Subpart C. The TCLP results will be compared to the RCRA TCLP regulatory levels found in Table 1 of 40 CFR 261 Subpart C. Also, total PAH will be requested when creosote is a concern and total dioxin will be requested when ash is being analyzed at PCP facilities. The total PAHs and dioxins data will be used to identify the presence and not the extent of the hazardous constituents of concern.

Soil samples will be collected from significant spill areas to determine whether a release of hazardous waste has occurred. A significant spill area is defined as one which has a diameter of greater than two (2) feet. These samples will be analyzed for total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). In the event that any of the analytical results for these total analyses exceed the TCLP regulatory threshold by a factor of 20, these samples will be analyzed for TCLP VOCs, TCLP SVOCs, and/or TCLP metals. Also, total PAH will be requested when creosote is a concern. This sampling will be conducted to determine if any hazardous constituents and/or waste have been released on-site, and to determine if the soil itself has been contaminated to such a level that it requires management as a hazardous waste. A background soil sample will be collected from a nearby unaffected area (such as a non-adjacent public park) and analyzed for total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). Also, total PAH will be requested when creosote is a concern. The TCLP results will be compared to the RCRA TCLP regulatory levels found in Table 1 of 40 CFR 261 Subpart C. In the event that the analytical results do not exceed RCRA TCLP levels, EPA Region III values for soils will be utilized to determine whether any health risks are present at the facility. The total PAH data will be used to identify the presence and not the extent of the hazardous constituents of concern.

Surface water samples will be collected from water bodies that have been or potentially have been impacted by wastes from the facility. This sampling will be conducted to determine if any hazardous constituents and/or waste have been released to the on-site surface water pathway, and to determine if the surface water itself has been contaminated to such a level that it requires management as a hazardous waste. The surface water samples collected will be analyzed for corrosivity (pH), total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). Since these are liquid samples, TCLP analyses will not be required. Also, total PAH will be requested when creosote is a concern. A background surface water sample will be collected from upstream or from a nearby unaffected area and analyzed for corrosivity (pH), total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). Also, total PAH will be requested when creosote is a concern. The analytical results for the characteristic of corrosivity will be compared to the regulatory levels found in 40 CFR 261 Subpart C. The surface water results will be compared to the RCRA TCLP regulatory levels found in Table 1 of 40 CFR 261 Subpart C. In the event that concentrations are less than RCRA TCLP regulatory levels, the concentrations will be compared to NOAA Screening Quick Reference Table values and/or EPA's Drinking Water Regulations and Health Advisories concentrations. The total PAH data will be used to identify the presence and not the extent of the hazardous constituents of concern.

Sediment samples will be collected from water bodies that have been or potentially have been impacted by wastes from the facility. This sampling will be conducted to determine if any hazardous constituents and/or waste have been released to the on-site surface water pathway, and to determine if the surface water itself has been contaminated to such a level that it requires

management as a hazardous waste. These samples will be analyzed for total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). In the event that any of the analytical results for these total analyses exceed the TCLP regulatory threshold by a factor of 20, these samples will be analyzed for TCLP VOCs, TCLP SVOCs, and/or TCLP metals. Also, total PAH will be requested when creosote is a concern. This sampling will be conducted to determine if any hazardous constituents and/or waste have been released to the on-site surface water pathway, and to determine if the sediment itself has been contaminated to such a level that it requires management as a hazardous waste. A background sediment sample will be collected from nearby unaffected water bodies where attainable (such as upstream) and analyzed for total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). Also, total PAH will be requested when creosote is a concern. The TCLP results will be compared to the RCRA TCLP regulatory levels found in Table 1 of 40 CFR 261 Subpart C. In the event that the analytical results do not exceed RCRA TCLP levels, the concentrations will be compared to NOAA Screening Quick Reference Table values. If no NOAA Screening Quick Reference constituents of concern values are available, then the sediment data will be used to identify the presence and not the extent of the hazardous constituents. Also, in the event a background sediment sample is not attainable, the data will be used to identify the presence and not the extent of the hazardous constituents of concern.

Groundwater samples will be collected from the taps of on-site and nearby private wells. The groundwater samples collected will be analyzed for corrosivity (pH), total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). Since these are liquid samples, TCLP analyses will not be required. Also, total PAH will be requested when creosote is a concern. This sampling will be conducted to determine if any hazardous constituents and/or waste have been released to the on-site and nearby groundwater private wells. If available, a background groundwater sample will be collected from upgradient of a potentially affected area and analyzed for total VOCs (RCRA VOCs only), total SVOCs (RCRA SVOCs only), and total metals (RCRA TCLP metals only). The results will be compared to EPA's Drinking Water Regulations and Health Advisories concentrations.

These sampling projects are scheduled to begin during the first quarter of FY2001, and will be conducted throughout the remainder of the fiscal year. Samples will be delivered to the EPA laboratory upon return from the sampling project (more than one sampling project may be conducted during a trip).

A complete equipment list is provided as Appendix B. Appendix C indicates the sample containers required during this project. Personnel requirements are listed in section A8 of this QAPP.

## **A7. DATA QUALITY OBJECTIVES AND CRITERIA FOR MEASUREMENT DATA**

The project data quality objective is to provide valid data of known and acceptable quality for waste streams, soil, surface water, sediment and groundwater samples. Sample data will be compared to the regulatory threshold for ignitability, corrosivity, TCLP Metals; TCLP cresol; TCLP o-, m-, and/or p-cresol; and TCLP PCP. Any sample analysis that exceeds the regulatory level is classified as a hazardous waste. The total PAH and dioxins data will be used to identify the presence and not the extent of the hazardous constituents of concern. Soil, sediment and surface water sample data will be compared against the background sample data. A release of contaminants (with the exception of metals) to the soil, sediment and surface water will be deemed to have occurred if the sample concentration level exceeds background, assuming reasonable background levels. A release of metal contaminants to the soil, sediment and surface water will be deemed to have occurred if the sample concentration level exceeds a background concentration level by more than a factor of two, assuming reasonable background levels. A soil background sample is reasonable if it does not exceed the soil actions levels established by EPA Region III. Surface water and sediment background samples are reasonable if they do not exceed the action levels established in the NOAA Screening Quick Reference Table and/or EPA's Drinking Water Regulations and Health Advisories concentrations. Groundwater data will be compared to EPA's Drinking Water regulations and Health Advisories concentrations. If no sediment or surface water background sample is available, then the data will be used to identify the presence and not the extent of the hazardous constituents of concern.

### **A7.1 Data Quality Indicators**

A sample summary table which includes the location and type of each sample, sample matrix, estimated number of samples, container type, preservation method, constituents of interest, analytical method, and level of interest is included as Appendix C. The data quality indicators to be measured are identified below.

#### **A7.1.1. Precision and Accuracy**

The goals for analytical precision and accuracy are described in Region 7 (R7) Environmental Services (ENSV) Standard Operating Procedures (SOP) and specified in the analytical methods. If a contract laboratory is utilized, the contracted laboratory shall meet or exceed the goals for analytical precision and accuracy described in R7 ENSV SOPs and the analytical methods.

Duplicate sample data will be utilized to assess precision. The acceptance limit for the precision assessed via field duplicate samples will be less than or equal to 50 percent relative standard deviation.

There will be no field measurements taken during this sampling activity.

Prior to each sampling visit, VOC trip blanks will be prepared by R7 ENSV in accordance with R7 ENSV SOPs. The VOC trip blanks will be filled with ASTM Type II water, preserved, transported to the site, kept with routine samples throughout the sampling event, packaged for shipment with routine samples, and sent with each shipping container to the laboratory. Analytical data from trip blank analyses will be utilized to determine the absence or presence of contamination during sample shipment.

There will be no rinsate blanks collected as only dedicated sampling equipment will be used.

At least one time during the project, performance evaluation (PE) samples will be prepared by R7 ENSV QA personnel. PE samples will be utilized to audit each laboratory analyzing the samples collected during the project. PE samples are a type of audit in which the quantitative data generated by the measurement system are obtained independently and compared with routinely obtained data to evaluate the proficiency of an analyst or laboratory. It is anticipated that the constituents to be measured in the PE sample will include RCRA TCLP metals, RCRA TCLP VOCs, and RCRA TCLP SVOCs. The target concentration ranges will be greater than the regulatory levels of the TCLP constituents (listed in 40 CFR 261 Subpart D) but less than 1,000 mg/L. The measurement quality to be assessed should only include bias.

#### **A7.1.2. Representativeness**

Representativeness will not be an issue during project sampling as worst-case conditions are being determined, these worst-case conditions being that portions of the waste stream sampled would be a hazardous waste. Therefore, samples will be collected from visually contaminated areas or areas most likely to contain the hazardous constituents of concern.

Representativeness will also not be an issue during sampling of soil, sediment, groundwater, and surface water, as the data will be used to identify the presence and not the extent of the hazardous constituents of concern.

#### **A7.1.3. Completeness**

The completeness of the project will be assessed by comparing the number of sample results to the number of samples submitted for analysis. The completeness goal is 100%. Should the completeness goal not be met, the project manager will determine if additional sample collection is needed.

#### **A7.1.4. Comparability**

Comparability will be addressed by collecting, analyzing, and reporting the data as described in this document. It is anticipated that standard methods or EPA methods will be implemented. Analytical results for TCLP analysis of waste and soil media should be reported in mg/L and the results for total analyses for these same media should be reported in mg/Kg. Analytical results for groundwater and surface water samples should be reported in mg/L for total metals analyses and  $\mu\text{g/L}$  for VOCs and SVOCs. Analytical results for flashpoint will be reported in degrees Celsius ( $^{\circ}\text{C}$ ).

#### **A8. SPECIAL TRAINING REQUIREMENTS/CERTIFICATION**

Prior to conducting this sampling activity, each inspector will have completed at a minimum the following training:

- Hazardous Waste Operations (Hazwoper) (40 hours)
- RCRA Program Training
  - Inspector Orientation (10 hours)
  - Regulatory Framework (40 hours)
  - RCRA Compliance Evaluation Inspections; 100 hours (30 hours must be on-the-job training with an experienced inspector), and at least two of these inspections must be at treatment, storage and disposal facilities.
- Participation in at least 2 sampling activities conducted by an experienced inspector
- Annual 8 hour safety Refresher Training
- CPR certification.

In addition, each inspector will be provided with (or provided access to) the following reference materials:

- EPA Region 7 Standard Operating Procedures
- EPA inspection guidance manuals
- Current edition of 40 CFR (260-299)
- State Hazardous Waste Regulations
- Hazardous materials reference
- SW-846
- Historical collection of rule changes (from 1980)
- EPA Standard Safety Operating Guides
- Wood Preserving Resource Conservation and Recovery Act (RCRA) Compliance Guide (EPA Document 305-B-96-001)

Each inspector will participate in a medical monitoring program. This monitoring will occur prior to conducting sampling activities, and on an annual basis thereafter. Inclusion in a respiratory protection program will be a part of this medical monitoring. All field staff will have equivalent safety and sampling training.

#### **A9. DOCUMENTATION AND RECORDS**

This information is covered by the current versions of R7 ENSV SOP Nos. 2410.1 "LABO Analytical Data Management Procedures" and 2410.10 "Analytical Data Submission Packages."

RCRA non-laboratory project records are maintained at the EPA Regional Records Center (RRC). It is the responsibility of the Records Information Manager at the RRC to maintain these records. At present time, RCRA non-laboratory project records are maintained on a continual basis.

The Wood Treatment Sector Coordinator will disseminate copies of the QAPP to the people listed in the distribution list (see section A3) once it is approved. Any revisions to the QAPP will be numbered sequentially. It will be the responsibility of the Wood Treatment Sector Coordinator to see that each person on the distribution list receives copies of any revisions.

#### **B1. SAMPLING PROCESS DESIGN**

##### **B1.1. Health and Safety**

The inspector must ensure that the sampling can be performed in accordance with accepted safety procedures. The inspector should refer to the Health and Safety section of the applicable sampling SOP for unit or method specific guidance and to EPA PB92-963414, "Standard Operating Safety Guides", for additional guidance. In the event that the inspector has any reservations as to the safety of the sampling operations, sampling will not occur under this plan.

The primary safety hazards during this sampling activity will be from physical hazards and possibly TCLP heavy metals (arsenic and chromium) dust and organic vapors from TCLP cresol and TCLP PCP. A safety survey will be conducted before any samples are collected. At the project leader's judgement, taking into account the weather, the surrounding conditions and the physical state of the waste streams, Level D is expected to be worn and possibly a respirator. Level D clothing consists of: tyvek gear, safety shoes, hard hat, safety glasses and gloves. A dust mask or a full-face respirator with appropriate dust cartridges may be worn.

## B1.2 Samples

### B1.2.1. Waste Streams at Point of Generation

Sump Sludge: Each facility will utilize a sump to collect preservative drippage from the drip pad. It is expected that the sump sludge is collected in a small container (such as a 55-gallon drum) at the sump. A grab sample will be randomly collected from the container. In the event a container is not present for collection of the waste and at the sump contains sludge that has not been cleaned out, a grab sample will randomly be collected from the sump.

Process Residuals: Process residuals include small pieces of wood, sludge, dirt, sand, stones, and polymerized oils that have been contaminated by contact with the wood preservative. Process residual wastes may be generated during cleaning of retorts, drip pads, or tanks. It is expected that process residuals are collected in small containers (such as a 55-gallon drum) near the retorts, drip pads, or tanks. A grab sample will be randomly collected from the container.

Filter or Screening Sludge: It is anticipated that each facility will utilize filter or screening units between the retort, sump, oil/water separator unit, and the preservative storage tank. It is expected that filter or screening sludge is collected in a small container (such as a 55-gallon drum) near the filter or screening unit. A grab sample will be randomly collected from the container.

Wastewater: Boulton and steam conditioning retort processes generate the most wastewater at wood treating facilities. These processes generate between 0.5 and 9 gallons of wastewater per cubic foot of wood treated. Wastewater may also be generated when water comes into contact with formulation during recovery and/or treated wood, during equipment cleaning, and/or when rainwater is accumulated. In the event that the facility generates contact wastewater, a sample will be collected at the point of generation. A grab sample will be randomly collected from the point of generation. Wastewater samples will not be collected from units exempted by 40 CFR 261 Subpart A.

Wastewater Treatment Unit Sludge: It is anticipated that wastewater treatment unit sludge will be generated during clean out of the wastewater treatment tank. It is expected that the sludge will be collected in a small container (such as a 55-gallon drum) at the point of generation. A grab sample will be randomly collected from the container.

Storage Yard Clean-up Material: It is expected that each facility will have a storage yard separate from its drip pad. Incidental drippage from the treated wood may occur in the storage yard. Clean up of drippage must occur within one working day of discovery of the drippage or the release would be considered illegal disposal. It is anticipated that drippage wastes may be present on the ground and in a small container (such as a 55-gallon drum) at the storage yard. In



the event that drippage is on the ground, a grab sample will be collected from the ground surface. If the storage yard clean-up material has been collected into a container, a grab sample will be randomly collected from the container.

Discarded Unused Preservative (Concentrate): It is anticipated that some of the facilities may have changed wood treating preservative processes and may have the former preservative in storage. It is expected that the unused preservative may be stored in a small container (such as a 55-gallon drum). A grab sample will be randomly collected from the container. If the container is labeled appropriately and the container is sealed, a sample will not be collected.

Tank Clean-out Bottoms: Tank bottom sludges will be generated during clean out of process and waste tanks containing wood preservative solutions. It is expected that the sludge will be collected in a small container (such as a 55-gallon drum) at the point of generation. A grab sample will be randomly collected from the container.

Ash: It is anticipated that each PCP facility will have a burn pile and that ash may be present on the ground. In the event that ash is on the ground at the PCP facilities, a composite sample will be randomly collected from the ash 0 to 6 inches deep (or the depth of the ash). The ash sample from the burn pile area will consist of one composite sample of up to four aliquots depending on size of the area. The aliquots will be collected from an imaginary line randomly visualized in the burn pile area. Ash may also be in a boiler at the PCP facilities. In the event that ash is in the boiler and attainable, a grab sample will be randomly collected from the ash.

#### **B1.2.2. Waste Spill Area**

It is expected that some of the waste streams may be spilled onto the ground, either intentionally or unintentionally. These waste spills are expected to be small, no more than a few feet in diameter; however, large spill areas may also be encountered. A surface soil/waste sample will be collected from the soil in the waste spill area (may be more than one at the facility). For this project, surface soil is defined as the top 0-2 inches of soil.

The soil/waste sample from the spill area will consist of one composite sample of up to four aliquots depending on size of the area. The aliquots will be collected from an imaginary line randomly visualized in the spill area. If the spill is in a wood preserving management area (such as the treatment area or the storage yard), then a grab sample may be randomly collected as opposed to a composite if the sample will be used to confirm waste content. The aliquots or grab will be randomly selected from the area most likely to be hazardous based on visual observations or based on process information received by the facility representative during the inspection.

A surface soil background sample will be collected from an unaffected area on-site if such an area can be located. If an unaffected area cannot be located on-site, a background sample will be collected from an unaffected area off-site.

### **B1.2.3. Surface Water and Sediment**

The topography and drainage of each site is unknown. Potentially, wastes may be released to the surface water pathway. The surface water pathway may include pooling or ponding of water on-site and/or releases into streams and/or rivers.

Where applicable, surface water samples will be collected upgradient of the release and at the point of entry of the waste stream to the surface water pathway. In the event that the release of the waste stream resulted in the pooling or ponding of water, a surface water and sediment sample will be collected from the pool or pond where attainable.

### **B1.2.4. Groundwater**

Given the remote location of most of the wood treatment facilities, it is anticipated that each facility will have a private well utilized for drinking water. Potentially, other private wells may be nearby. If possible, the potential for on-site and nearby groundwater wells will be determined prior to the sampling visit by utilizing topographic maps of the site area.

A groundwater sample will be collected from a tap located nearest to the well. Permission will be obtained from the well owner prior to sampling any well.

### **B1.3. Waste Generated During Sampling**

If any hazardous or potentially hazardous waste is generated from these sampling procedures, it will be left at the site, if possible or double bagged, labeled, and returned to EPA.

### **B1.4. Additional Design Information**

For this project, the inspector shall complete a more detailed sampling process design on-site, prior to conducting the sampling operations. The more detail sampling process design shall consist of noting sample locations on the site sketch, photographing the sample location, documenting the sampling method and sampling equipment.

The inspector will document any unusual site conditions or potential interferences.

For each sampling visit, the total number of samples expected to be collected and submitted for analysis under this plan, including duplicates is shown in Appendix C.

## B2. SAMPLING METHODS REQUIREMENTS

EPA will collect waste, soil, surface water, and groundwater, according to the rationale presented in Section B1. Samples will be collected in accordance with EPA R7 ENSV SOPs. The EPA R7 SOPs applicable to sampling that may be conducted during the project include:

- SOP No. 2130.2A - Field Chain of Custody for Environmental Samples
- SOP No. 2130.3B - Identification, Documentation and Tracking of Samples
- SOP No. 2130.4B - Sample Container Selection, Preservation and Holding Times
- SOP No. 2231.9A (ERT #2009) - Drum Sampling
- SOP No. 2231.10A (ERT #2010) - Tank Sampling
- SOP No. 2231.12A (ERT #2012) - Soil Sampling
- SOP No. 4230.17A - Surface Water Sample Collection
- SOP No. 4230.8A - Sediment Sample Collection
- SOP No. 2334.10A - Drinking Water Sample Collection

### B2.1. Sampling

Waste Streams at Point of Generation: Wastes may consist of retort wastes, sump wastes, tank liquids, drip pad wastes, or containerized wastes. It is anticipated that these wastes will be containerized in tanks or drums. Therefore, field personnel will follow R7 ENSV SOP No. 2231.9A (ERT #2009) - Drum Sampling or R7 ENSV SOP No. 2231.10A (ERT #2010) - Tank Sampling. If more than one tank or container at the point of generation, then a tank or container will be randomly selected for sampling. Depending on the consistency of the waste, samples will be collected using a thieving rod, disposable bailer, or stainless steel spoons. A sample may also be collected by immersing the sample container, filling the sample container directly, or by filling the sample container by using a second decontaminated container. Grab samples will be collected near the point of generation. Samples collected for VOC analysis will be immediately placed into the appropriate VOA containers. The remaining sample containers will be filled following the VOA containers. If the wastes are not liquid, the remainder of the grab samples will be homogenized in aluminum pie pans and placed into appropriately labeled 8 oz. glass sample containers. If any of the wastes consist of large pieces, the larger pieces will be broken with a stainless steel spoon prior to placement in the sample container.

**Waste Spill Area:** Waste spill areas will consist of surface soil contaminated by the intentional or unintentional spillage of wood preservative or associated wastes. These waste spill area samples will be collected as discussed in Section B1 above in accordance with R7 ENSV SOP No. 2231.12A "Soil Sampling" (the section addressing the collection of surface soil samples).

**Surface Water:** Grab samples will be collected from surface water as outlined in R7 ENSV SOP No. 4230.17A "Surface Water Sample Collection" where attainable. If not attainable, then a grab sample will be randomly collected from the area that is attainable.

**Sediment:** Grab samples will be collected from water body as outlined in R7 ENSV SOP No. 4230.17A "Surface Water Sample Collection" where attainable. If not attainable, then a grab sample will be randomly collected from the area that is attainable.

**Groundwater:** Grab samples will be collected from groundwater as outlined in R7 ENSV SOP No. 2334.10A "Drinking Water Sample Collection." Low detection limits are requested for VOCs. Therefore, 4-40 mL VOA vials will be utilized during sample collection.

## **B2.2. Additional Requirements**

Sampling points will be identified in the field notes by their directional distance from landmarks that are likely to be preserved over time. The field observations will be recorded in a bound notebook and/or on the field sheets. Photographs of sampling locations will be taken.

The estimated total number of samples expected to be collected during each sampling project is 30. This number includes 11 waste samples, 10 soil samples, three (3) surface water samples, two (2) groundwater samples, three (3) duplicate samples and one (1) trip blank sample.

## **B3. SAMPLE HANDLING AND CUSTODY REQUIREMENTS**

Sample containers, preservation, and holding times will be those found in R7 ENSV SOP No. 2130.4B, "Sample Container Selection, Preservation, and Holding Times."

Chain-of-custody and field documentation will be in accordance with R7 ENSV SOP No. 2130.2A, "Field Chain-of-Custody for Environmental Samples" and R7 ENSV SOP No. 2130.3B "Identification, Documentation, and Tracking of Samples," respectively. The time of collection, location, sample section size, number of aliquots, and the sample depth will be recorded on field sheets.

#### B4. ANALYTICAL METHODS REQUIREMENTS

The samples will be analyzed by the EPA Laboratory in accordance with the methods and levels of interest listed in Appendix C. Routine laboratory turnaround is requested for these projects. The overall implementation of the quality assurance program by the Regional Laboratory is addressed in the R7 ENSV SOP Nos. 1640.1, "Region 7 Laboratory Quality Assurance Project Plan" and 1610.1C, "Regional Laboratory Quality Control Policy".

#### B5. QUALITY CONTROL REQUIREMENTS

Duplicate Samples: The duplicate samples identified in Appendix C of the QAPP will be collected as split samples for all analyses with the exception of those samples that will be analyzed for volatile organic compounds (VOC). Duplicate samples that will be analyzed for VOCs will consist of grab samples. At least one duplicate per media (waste, soil, and water) will be collected during each sampling in accordance with the R7 ENSV SOPs listed in section B2.1. If more than 10 samples are collected of a media, additional duplicate samples will be collected at a rate of one duplicate sample per ten samples for each media. The duplicate samples will be utilized to assess variance of the total method including sampling and analysis.

Trip Blank Samples: Prior to each sampling project, a VOC trip blank sample will be prepared by the R7 laboratory. This trip blank sample will be kept with the routine samples throughout the sampling event, packaged for shipment with the routine samples, and sent to the R7 laboratory with the samples. The VOC trip blank sample is necessary to determine the presence or absence of contamination during shipment.

Field Blanks: No field blanks are planned for this project.

Split Blank Samples: Split samples will be offered to the facility representative and provided by EPA if requested.

PE Sample: At least one time during the project, a PE sample will be prepared by R7 ENSV QA personnel. PE samples will be utilized to audit each laboratory analyzing the samples collected during the project. PE samples are a type of audit in which the quantitative data generated by the measurement system are obtained independently and compared with routinely obtained data to evaluate the proficiency of an analyst or laboratory.

Laboratory quality control elements: Laboratory quality control elements including spikes and blanks, will be performed in accordance with the above referenced analytical R7 ENSV SOP and R7 ENSV SOP No. 1610.1C.

**B6. INSTRUMENT/EQUIPMENT TESTING, INSPECTION, AND MAINTENANCE REQUIREMENTS**

No field equipment requiring testing, inspection, and maintenance will be used.

For the analytical instrumentation, the testing, inspection, and maintenance will be performed in accordance with the above-referenced analytical SOP and manufacturer's recommendations.

**B7. INSTRUMENT CALIBRATION AND FREQUENCY**

No field instruments requiring calibration will be used for this project.

For the analytical instrumentation, the calibration will be performed in accordance with the above-referenced analytical SOP and manufacturer's recommendations.

**B8. INSPECTION/ACCEPTANCE REQUIREMENTS FOR SUPPLIES AND CONSUMABLES**

The Project Manager will be responsible for inspecting sample containers before leaving for the field. Only new sample containers accompanied by the manufacturer's certification of pre-cleaning will be used. The sample containers will also be inspected for cracks, ill-fitting lids, and other obvious defects before use and will be discarded if defects are found to be present.

**B9. DATA ACQUISITION REQUIREMENTS FOR NON-DIRECT MEASUREMENTS**

No data will be used from other sources.

**B10. DATA MANAGEMENT**

Data management will be in accordance with R7 ENSV SOP Nos. 2120.2A, "Document Control" and 2410.1B "LABO Analytical Data Management Procedures."

**C1. ASSESSMENTS AND RESPONSE ACTIONS**

Assessments and response concerning the analytical aspect of the project are addressed in the R7 ENSV SOP Nos. 1610.1C and 1640.1A. The information covers examples of conditions indicating out-of-control situations, who is responsible for initiating the corrective actions, and what steps may be taken.

Due to the limited duration of each sampling project, no field assessment is planned for this activity due to the short time period of each project.

## **C2. REPORTS TO MANAGEMENT**

Once the project is complete and the resulting data obtained, the EPA project manager will prepare a final inspection report. The report will include a summary of the activities performed during the project and the resulting data (along with any statements about problems concerning data quality). The inspection report shall identify any results that indicate non-compliance with regulatory requirements, or that indicate potential release of regulated materials to the environment.

### **D1. DATA REVIEW, VALIDATION, AND VERIFICATION REQUIREMENTS**

The data will be peer reviewed by a qualified analyst and the lab Section Manager as identified in R7 ENSV SOP Nos. 1640.1A and 1610.1C. The EPA project manager will be responsible for overall validation and final approval of the data in accordance with project purpose and use of the data.

### **D2. DATA VALIDATION AND VERIFICATION METHODS**

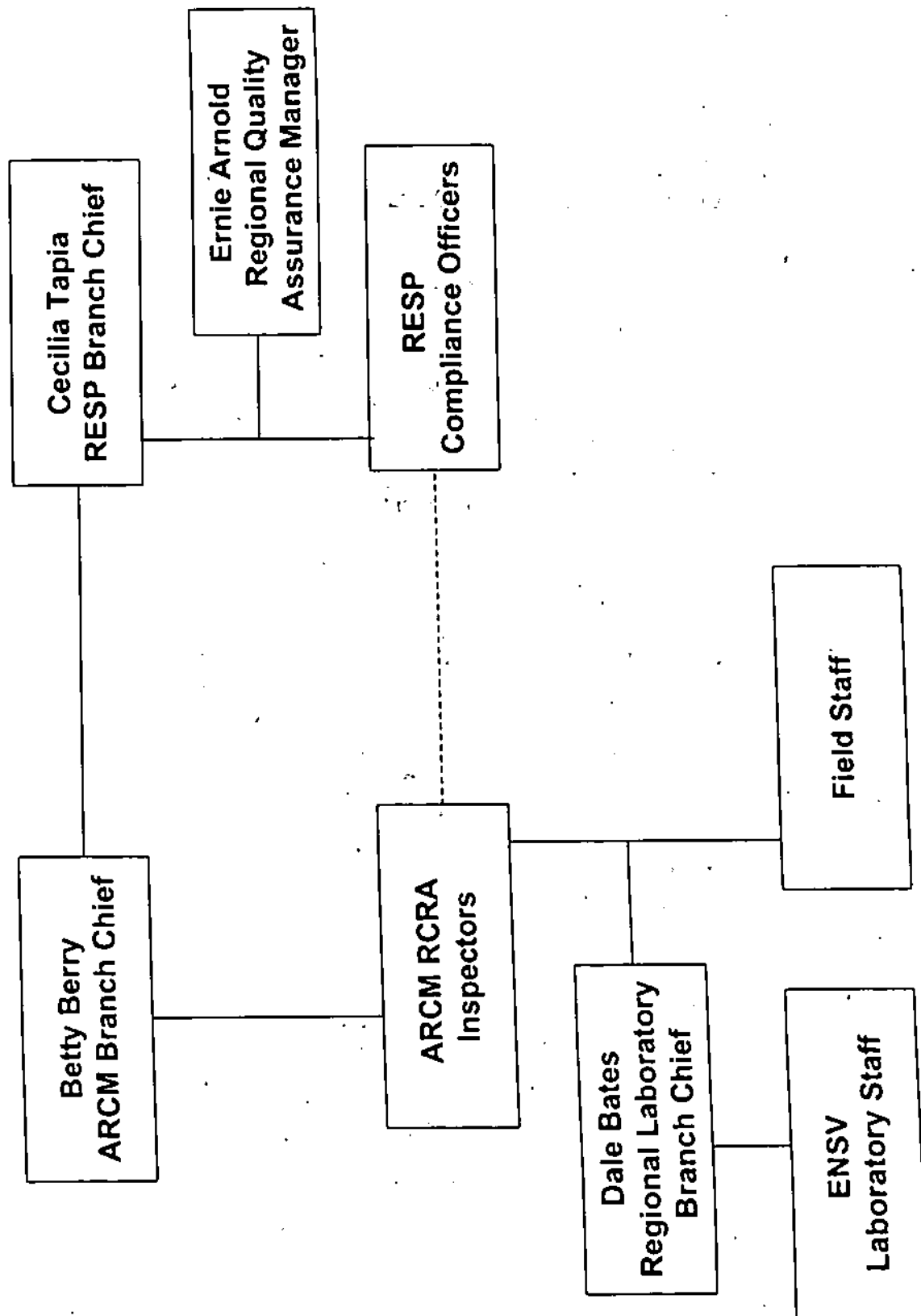
The data will be validated in accordance with R7 ENSV SOP Nos. 1610.1C and 1640.1A. QC spot checks will be performed by the R7 laboratory following the frequency and criteria outlined in R7 ENSV SOP Nos. 1640.1A and 1610.5A, "Quality Control Spot Checks of Regional Laboratory Data Packages."

The EPA project manager will perform the final review and approval of the data prior to it being entered into the LIMS LITE system as valid. The EPA project manager will look at field duplicates to ensure they are acceptable. The EPA project manager will also compare the sample descriptions with the field sheets for consistency and will ensure that any anomalies in the data are appropriately documented.

### **D3. RECONCILIATION WITH USER REQUIREMENTS**

Once the data results are compiled, the EPA project manager will review the field duplicates to determine if they fall within the acceptance limits as defined in this QAPP. Completeness will also be evaluated to determine if the completeness goal for this project has been met. If data quality indicators do not meet the project's requirements as outlined in this QAPP, then the data may be discarded and re-sampling may occur. The EPA project manager will evaluate the cause of the failure (if possible) and make the decision to discard the data and re-sample. If the failure is tied to the analysis, calibration and maintenance techniques will be reassessed as identified by the appropriate lab personnel.

**Appendix A: Project Organizational Chart**  
**RCRA Compliance Sampling at Wood Treatment Facilities**





## APPENDIX B SAMPLING EQUIPMENT AND SUPPLIES LIST

### Project Equipment

- tape measure
- camera
- bung wrench
- Crescent wrench (2)
- sample coolers (5 per sampling event - 60 total)

### Site-Specific Disposable Equipment

- survey flags (12 per sampling event - 1 gross total)
- disposable aluminum pie tins (20 per sampling event - 240 total)
- 8 oz. sample jars\* (128 per sampling event - 1,536 total for project)
- 40 mL VOA vials\* (228 per sampling event - 2,736 total for project)
- 128 oz. Amber jugs\* (12 per sampling event - 144 total for project)
- 1-Liter cubitainers\* (88 per sampling event - 1,056 total for project)
- nitric acid (1 bottle per sampling event)
- hydrochloric acid (1 bottle per sampling event)
- sample labels
- field sheets
- chain of custody forms (2 per sampling event - 24 total for project)
- chain of custody seals (20 seals per sampling event - 240 total for project)
- ice (purchased as needed during sampling event)
- sample cooler bags (5 per sampling event - 60 total for project)
- stainless steel spoons (25 per sampling event - 300 total for project)
- film (2 rolls per sampling event - 24 rolls total for project)
- disposable glass drum thieves (10 per sampling event - 100 total for project)
- disposable bailers (5 per sampling event - 60 total for project)
- tyvek (4 pairs per sampling event - 48 total for project)
- booties (4 pairs per sampling event - 48 total for project)
- sampling gloves (2 boxes of 100 per sampling event - 24 total for project)
- work boots
- safety glasses
- hard hats
- duct tape (1 roll per sampling event - 12 rolls total for project)
- paper towels (2 rolls per sampling event - 24 rolls total for project)
- 2-inch cellophane tape (1 roll per sampling event - 12 rolls total for project)
- 1-inch packing tape (1 roll per sampling event - 12 rolls total for project)
- 30-gallon trash bags (2 boxes total for project)
- plastic sheeting (1 roll total for project)

\* - Numbers of containers include containers for facility's split samples.

**APPENDIX C**  
**EPA SAMPLE SUMMARY TABLE FOR WOOD TREATMENT FACILITIES**  
**ONE SAMPLING EVENT**

Location and Type of Sample	Sample Matrix	Estimated Number of Samples	Container Type	Preservation Method	Constituents of Interest	Analytical Method (SW-846)	Levels of Interest
Waste Streams At Point of Generation	<ul style="list-style-type: none"> <li>- preservative</li> <li>- residuals</li> <li>- sludge</li> <li>- wood</li> <li>- dirt</li> <li>- sand</li> <li>- stones</li> <li>- oils</li> <li>- ash</li> </ul>	12 includes one duplicate	4-40 mL VOA vials  1-8 oz. jars	Cool to 4°C  Cool to 4°C  Cool to 4°C  Cool to 4°C  Cool to 4°C	Total TCLP VOCs and TCLP VOCs	8260 and 1311	- MDL - regulatory threshold found at 40 CFR 261 Subpart C
					Total TCLP SVOCs and TCLP SVOCs (PAH is a subset of SVOCs - for creosote concerns only)	8270 and 1311	
					Total TCLP Metals and TCLP Metals	6010 and 1311	
					Ignitability (flashpoint) and Corrosivity (pH)	1010, 1020, or 9040	
					Dioxin (for ash only at PCP facilities)	1613	
Waste Spill Areas	<ul style="list-style-type: none"> <li>- contaminated soil</li> <li>- sediment</li> </ul>	11 includes one duplicate	4-40 mL VOA vials  1-8 oz. jar	Cool to 4°C  Cool to 4°C  Cool to 4°C	Total TCLP VOCs and TCLP VOCs	8260 and 1311	- MDL - regulatory threshold found at 40 CFR 261 Subpart C
					Total TCLP SVOCs and TCLP SVOCs (PAH is a subset of SVOCs - for creosote concerns only)	8270 and 1311	
					Total TCLP Metals and TCLP Metals	6010 and 1311	

**APPENDIX C**  
**EPA SAMPLE SUMMARY TABLE FOR WOOD TREATMENT FACILITIES**  
**ONE SAMPLING EVENT**

Location and Type of Sample	Sample Matrix	Estimated Number of Samples	Container Type	Preservation Method	Constituents of Interest	Analytical Method (SW-846)	Levels of Interest
Surface Water	- water - wastewater	4 includes one duplicate per sampling activity	2-40 mL VOA vials	HCl to pH<2 Cool to 4°C	Total TCLP VOCs	8260	- MDL - regulatory threshold found at 40 CFR 261 Subpart C - NOAA Screening Quick Reference Table values
			1-128 oz. amber glass bottles	Cool to 4°C	Total TCLP SVOCs (PAH is a subset of SVOCs - for creosote concerns only)	8270	
			1-Liter cubitainer	HNO <sub>3</sub> to pH<2 Cool to 4°C	Total TCLP Metals	6010	
			1-8 oz. jar	Cool to 4°C	Ignitability (flashpoint) and Corrosivity (pH)	1010, 1020, or 9040	
Drinking Water Wells	- Water (groundwater)	2	4-40 mL VOA vials	HCl to pH <2 Cool to 4°C	LDL VOCs	8260	- EPA Drinking Water Regulations and Health Advisory levels (a.k.a. MCLs)* - regulatory threshold found at 40 CFR 261 Subpart C
			1-128 oz. amber glass bottles	Cool to 4°C	Total TCLP LDL SVOCs (PAH is a subset of SVOCs - for creosote concerns only)	8270 (Herbicide Analysis for PCP MCL)	
			1-Liter cubitainer 1-8 oz. jar	HNO <sub>3</sub> to pH<2 Cool to 4°C Cool to 4°C	Total TCLP Metals Ignitability (flashpoint) and Corrosivity (pH)	6010 1010, 1020, or 9040	

**APPENDIX C**  
**EPA SAMPLE SUMMARY TABLE FOR WOOD TREATMENT FACILITIES**  
**ONE SAMPLING EVENT**

Location and Type of Sample	Sample Matrix	Estimated Number of Samples	Container Type	Preservation Method	Constituents of Interest	Analytical Method (SW-846)	Levels of Interest
VOC Trip Blank	- Water	1	4-40 mL VOA vials	HCl to pH<2 Cool to 4°C	LDL VOCs	8260	N/A

**KEY:**

TCCLP - Toxicity Characteristic Leaching Procedure  
 VOC - Volatile Organic Compound  
 SVOC - Semi-volatile Organic Compound  
 MDL - Minimum Detection Limit  
 LDL - Low Detection Limit  
 MCL - Safe Drinking Water Act Maximum Contaminant Level  
 N/A - Not Applicable

\* The ASR, field sheets and tags will indicate that the lower detection limit (MDLs) analyses are requested for these analytes.

# Sample Collection Field Sheet

US EPA Region VII  
Kansas City, KS

ASR Number: 827

Sample Number: <sup>100</sup> 2

QC Code: \_\_\_\_\_

Matrix: Hazardous

Tag ID: \_\_\_\_\_

827-<sup>100</sup> 3

Activity Number: DLN14

Activity Leader: Newsome, Dedriel

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Location Desc: Drip Pad Waste From Drip Pad Collection System

STORET ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: Circle One: Low Medium High PAH

Date Time (24 Hr)

Latitude: \_\_\_\_\_

Sample Collection:

Start 3/7/01 13:46

Longitude: \_\_\_\_\_

End 3/7/01 13:46

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
✓ 1 - 4 oz glass	4 Deg C	14 Days	Total Semivolatiles of TCLP compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	TCLP VOCs in Hazardous by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	VOCs in Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	Total Metals of TCLP in Hazardous Samples by ICAP
1 - 8 oz glass	4 Deg C	14 Days	TCLP Semi-Volatiles in Hazardous
1 - 8 oz glass	4 Deg C	180 Days	TCLP Metals in Haz. Waste
1 - 8 oz glass	None	Days	Flashpoint of Hazardous Samples
1 - 8 oz glass	None	Days	pH of Hazardous Sample
1 - 8 oz glass	_____	_____	PAH

## Sample Comments:

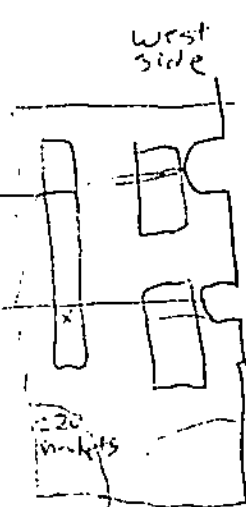
Taken near well (south well) near railroad tracks on west side

Black tarry paste (deep umbles)

< 1" liquid on top of vat

MO Tie treatment showed → Al pan → sample jar

Sample collected by: Trevor Urban



# Sample Collection Field Sheet

US EPA Region VII  
Kansas City, KS

ASR Number: 827

Sample Number: 101

QC Code: ~~101-Duplicate~~

Matrix: Soil

Tag ID: 827-101-

Activity Number: DLN14

Activity Leader: Newsome, Dedriel

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Location Desc: T-Building wood storage area (duplicate taken here)

STORET ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: Circle One: Low Medium High

PAH  
metals

Date

Time (24 Hr):

Latitude: \_\_\_\_\_

Sample Collection:

Start 3/7/01 14:00

Longitude: \_\_\_\_\_

End 3/7/01 14:05

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
<del>2 - 20mL VOA vial</del>	<del>4 Deg C</del>	<del>14 Days</del>	<del>VOEs in Solid Matrices by GC/MS</del>
<del>2 - 40mL VOA vial</del>	<del>4 Deg C</del>	<del>14 Days</del>	<del>TCLP VOCs in Soil by GC/MS</del>
<del>1 - 8 oz glass</del>	<del>4 Deg C</del>	<del>14 Days</del>	<del>TCLP Semi-Volatiles in Soil</del>
1 - 8 oz glass	4 Deg C	14 Days	Total Semivolatiles of TCLP compounds in Solids
1 - 8 oz glass	4 Deg C	180 Days	Total Metals Analysis of TCLP Metals in Soil by ICAP
<del>1 - 8 oz glass</del>	<del>4 Deg C</del>	<del>180 Days</del>	<del>TCLP Metals in Soil</del>
			<del>TCLP Metals in Soil</del>
			Total Semivolatiles of TCLP compounds in Soil

## Sample Comments:

Sand w/ <sup>point 2</sup> ~~staining~~ gravel  
Sample taken in drop areas (composite)  
T-building runs east-west; sample  
com aliquots taken south of stored wood.  
SS speons → AL pans → sample jar

Treatment cylinders

T-Building (stored wood)

← x x x x x  
aliquots →

N ↑

Sample collected by:

Trevor Urban

# Sample Collection Field Sheet

US EPA Region VII  
Kansas City, KS

ASR Number: 827

Sample Number: <sup>101</sup> ~~404~~

QC Code: ED

Matrix: Soil

Tag ID: <sup>101-ED</sup> 827-104-

Activity Number: DLN14

Activity Leader: Newsome, Dedriel

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Location Desc: T-Building Wood Storage Area

STORET ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: Circle One: Low Medium High <sup>PAH</sup> metals

Latitude: \_\_\_\_\_

Sample Collection:

Date Time (24 Hr)

Longitude: \_\_\_\_\_

Start 3/7/01 14:00  
End 3/7/01 14:05

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
-2 - 20mL VOA vial	4 Deg C	14 Days	VOCs in Solid Matrices by GC/MS
-2 - 40mL VOA vial	4 Deg C	14 Days	TCLP VOCs in Soil by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	TCLP Semi-Volatiles in Soil <del>PAH</del>
1 - 8 oz glass	4 Deg C	180 Days	TCLP Metals in Soil
1 - 8 oz glass	4 Deg C	180 Days	Total Metals Analysis of TCLP Metals in Soil by ICAP
1 - 8 oz glass	4 Deg C	14 Days	Total Semivolatiles of TCLP compounds in Solids <sup>PAH</sup>

Sample Comments:

PAH  
Total Semivolatiles of TCLP compounds in Solids  
+TCLP

See Sample Sheet 101

Sample collected by: Trevor Urban

# Sample Collection Field Sheet :

US EPA Region VII  
Kansas City, KS

ASR Number: 827

Sample Number: 102

QC Code:   

Matrix: Soil

Tag ID: 827-102-

Activity Number: DLN14

Activity Leader: Newsome, Dedriel

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Location Desc:

Background sample

STORET ID:   

External Sample Number:   

Expected Conc: Circle One: Low Medium High

Latitude:   

Sample Collection:

Date Time (24 Hr)  
Start 3/7/01 14:20  
End 3/7/01 14:25

Longitude:   

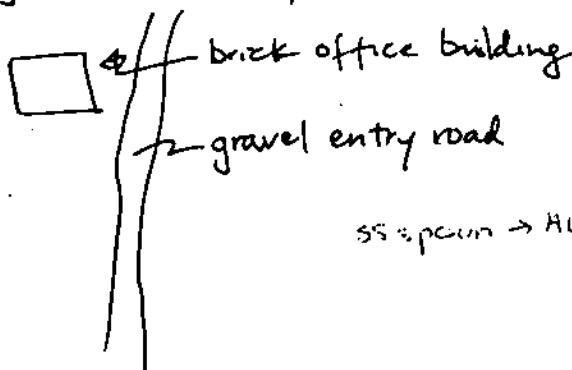
## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
<del>2 - 20mL VOA vial</del>	<del>4 Deg C</del>	<del>14 Days</del>	<del>VOCs in Solid Matrices by GC/MS</del>
<del>2 - 40mL VOA vial</del>	<del>4 Deg C</del>	<del>14 Days</del>	<del>TCLP VOCs in Soil by GC/MS</del>
<del>1 - 8 oz glass</del>	<del>4 Deg C</del>	<del>14 Days</del>	<del>TCLP Semi-Volatiles in Soil</del>
1 - 8 oz glass	4 Deg C	14 Days	Total Semivolatiles of TCLP compounds in Solids
1 - 8 oz glass	4 Deg C	180 Days	Total Metals Analysis of TCLP Metals in Soil by ICAP
<del>1 - 8 oz glass</del>	<del>4 Deg C</del>	<del>180 Days</del>	<del>TCLP Metals in Soil</del>

## Sample Comments:

Dark brown dirt

Taken approx. 100 yds south and  
100 yds west of gravel entry road. → of office building



sample location

SS spec → AL spec → sample jar

Sample collected by:

Trevor Urban



# Sample Collection Field Sheet

US EPA Region VII  
Kansas City, KS

ASR Number: 827      Sample Number: 205      QC Code:      Matrix: Water      Tag ID: 827-205-

Activity Number: DLN14      Activity Leader: Newsome, Dedriel

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Location Desc: Collection Pond

STORET ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: Circle One: Low Medium High <sup>PAN</sup> metals

Date      Time (24 Hr)

Latitude: \_\_\_\_\_

Sample Collection:

Start 3/7/01 16:05

Longitude: \_\_\_\_\_

End 3/7/01 16:07 <sup>16:18</sup>

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	4 Deg C	Days	pH of Water
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	Metals in Water by ICP
1 - 128oz amber glass	4 Deg C	7 Days	Semi-Volatile Organic Compounds in Water (include P&H)
2 - 40mL VOA vial	4 Deg C, HCL to pH < 2	14 Days	VOCs in Water by GC/MS

## Sample Comments:

yellowish clay water

Collected in 128oz bottle & poured into metals 1L container  
& then filled 128oz sample container

Sample collected by: Treyer Urban

San.  
init.

offer

4/19/01

# Sample Collection Field Sheet

US EPA Region VII  
Kansas City, KS

ASR Number: 827 Sample Number: <sup>208</sup>206 QC Code: Matrix: Water Tag ID: <sup>208</sup>827-206-

Activity Number: DLN14 Activity Leader: Newsome, Dedriel

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Location Desc: Drinking Water From On-Site Well Near Boiler

STORET ID:

External Sample Number:

Expected Conc: Circle One: (Low) Medium High <sup>pH</sup> <sup>metals</sup>

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Sample Collection:

Start 3/7/01 15:50

End 3/7/01 15:57

*5000 (TAN) (HCL)*

## Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	4 Deg C	Days	pH of Water
1 - 1 Liter Cubitainer	HNO <sub>3</sub> acidify, 4 Deg C	180 Days	Metals in Water by ICP <sup>plut</sup> <sup>(HCL)</sup>
1 - 128oz amber glass	4 Deg C	7 Days	Semi-Volatile Organic Compounds in Water <sup>per BE</sup> <sup>(TAN, HCL)</sup>
<del>2 - 40mL VOA vial</del>	<del>4 Deg C, HCL to pH &lt; 2</del>	<del>14 Days</del>	<del>VOCs in Water by GC/MS</del>

## Sample Comments:

well is  $\approx$  15' south of well head

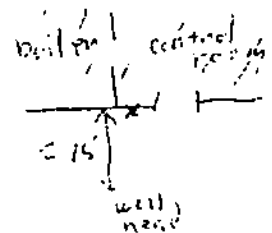
Clear Water

From Bunker

Purged well 5 min & collected sample in 128 oz jar

Second container

Purged well 5 min & collected sample in 1L cubi



Sample collected by: Treven Urban

PER 201

PER 201

### CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS				VOA SET (2 VIALS EA)	SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	16 CUBITAINER	502 BOTTLE	13502 BOTTLE	3 BOTTLE		water	soil	sediment	dust		other
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
827-100		3								✓	200207
-101		2				✓					
-101FD		2				✓					
-102		2				✓					
205	1		1		✓						
208	1		1		✓						
<div style="border: 1px solid black; border-radius: 50%; width: 400px; height: 400px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <div style="transform: rotate(-45deg); font-size: 100px; font-weight: bold; opacity: 0.5;">Complete</div> </div>											
<p>Samples Rec'd without ice @ 10-12°C.</p>											

Samples Rec'd  
without ice @  
10-12°C.

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
<u>13</u> PIECE(S) CONSISTING OF _____ BOX(ES) <u>1</u> ICE CHEST(S); OTHER _____	_____ COMMERCIAL CARRIER: _____ _____ COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) _____

## PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER) <i>[Signature]</i>	DATE <i>3/8/67</i>	TIME <i>1430</i>	RECEIVED BY <i>Nicholas Robley</i>	REASON FOR CHANGE OF CUSTODY <i>Analysis</i>
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	

United States Environmental Protection Agency


Region 7 Laboratory  
25 Funston Road  
Kansas City, KS 66115

Date: 4/6/2001

Subject: Transmittal of Sample Analysis Results for ASR #: 827

Activity Number: DLN14

Activity Description: Missouri Tie and Timber

From: Michael Thomas, Associate Laboratory Director   
Regional Laboratory, Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

This is the sample analysis results transmittal for the above-referenced Analytical Services Request (ASR). The data contained in this transmittal have been approved by the Regional Laboratory. This transmittal contains all of the sample analysis results for this ASR. The Regional Laboratory should be notified within 14 days if any changes are needed to the contents of this report. If you have any questions, comments or data changes, please contact the Laboratory Customer Service Department at 913-551-5295.

cc: Analytical Data File

ASR Number: 827

Summary of Activity Information

4/6/2001

Activity Leader: Newsome, Dedriel

Org: ENSV/ARCM

Phone: (913) 551-7049

Activity Number: DLN14

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Purpose: Enforcement

Explanation of Codes, Units and Qualifiers used on this report.

Sample QC Codes: QC Codes identify the type of sample for quality control

— = Field Sample  
FD = Field Duplicate

Units: Specific units in which results are reported.

Deg C = Degrees Celsius  
mg/kg = Milligrams per Kilogram  
mg/L = Milligrams per Liter  
SU = Standard Units (pH)  
ug/kg = Micrograms per Kilogram  
ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.  
K = Actual value of the sample is less than the value reported.  
L = Actual value of the sample is greater than the value reported.  
U = Not detected at or above the reportable level shown.

Activity Number: DLN14 --- ASR Number: 827

## Sample Information Summary

Activity Desc: Missouri Tie and Timber

4/6/2001

Sample Number	QC Code	Matrix	Location	External Sample No.	Start Date	Start Time	End Date	End Time	Receipt Date
100	---	Hazardous	Drip pad waste from drip pad collection system taken near South wall near RR tracks on West side		03/07/2001	13:45	03/07/2001	13:46	03/08/2001
101	---	Soil	T-Building wood storage area sample taken in drop areas		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
101	-FD	Soil	T-Building wood storage area/Duplicate of sample 101		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
102	---	Soil	Background soil sample taken approx. 100 yds. South of office bldg.		03/07/2001	14:20	03/07/2001	14:25	03/08/2001
205	---	Water	Collection Pond water sample		03/07/2001	16:05	03/07/2001	16:18	03/08/2001
208	---	Water	Drinking water from on-site well near boiler		03/07/2001	15:50	03/07/2001	15:57	03/08/2001

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Analysis	Comments About Results For This Analysis
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**TCLP Semi-Volatiles in Hazardous**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**TCLP Semi-Volatiles in Soil**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Metals Analysis of TCLP Metals in Soil by ICAP**

Slight chromium contamination was found in the laboratory method blank. Only samples containing this compound at a level greater than five times the contamination level of the blank are reported without being qualified. All samples that contained this compound but at a level less than five times the contamination in the blank have the result "U-coded" indicating the method reporting limit has been raised to the level found in the sample. Samples affected were 827-101 and 827-101FD.

**Total Semivolatiles of TCLP compounds in Hazardous Waste**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Semivolatiles of TCLP compounds in Solids**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
<b>Flashpoint of Hazardous Samples</b>					
Flashpoint	Deg C	79	L		
<b>pH of Hazardous Sample</b>					
pH	SU	6.7			
<b>TCLP Metals in Haz. Waste</b>					
Arsenic	mg/L	0.025	U		
Barium	mg/L	0.08			
Cadmium	mg/L	0.005	U		
Chromium	mg/L	0.005	U		
Lead	mg/L	0.025	U		
Selenium	mg/L	0.05	U		
Silver	mg/L	0.005	U		
<b>TCLP Semi-Volatiles in Hazardous</b>					
1,4-Dichlorobenzene	mg/L	0.00084	U		
2,4-Dinitrotoluene	mg/L	0.00073	U		
Hexachlorobenzene	mg/L	0.0005	U		
Hexachlorobutadiene	mg/L	0.00059	U		
Hexachloroethane	mg/L	0.00071	U		
2-Methylphenol	mg/L	0.014	U		
4-Methylphenol	mg/L	0.18			
Nitrobenzene	mg/L	0.00075	U		
Pentachlorophenol	mg/L	0.0012	U		
Pyridine	mg/L	0.0021	U		
2,4,5-Trichlorophenol	mg/L	0.0017	U		
2,4,6-Trichlorophenol	mg/L	0.0017	U		
<b>Total Metals of TCLP in Hazardous Samples by ICAP</b>					
Arsenic	mg/kg	125	U		
Barium	mg/kg	50	U		
Cadmium	mg/kg	25	U		
Chromium	mg/kg	25	U		
Lead	mg/kg	125	U		
Selenium	mg/kg	250	U		
Silver	mg/kg	25	U		
<b>Total Semivolatiles of TCLP compounds in Hazardous Waste</b>					
1,4-Dichlorobenzene	mg/kg	11.8	U		
2,4-Dinitrotoluene	mg/kg	9.1	U		
Hexachlorobenzene	mg/kg	13.6	U		
Hexachlorobutadiene	mg/kg	10.9	U		
Hexachloroethane	mg/kg	15	U		
2-Methylphenol	mg/kg	43.1	U		
4-Methylphenol	mg/kg	35.2	U		
Nitrobenzene	mg/kg	12.9	U		
Pentachlorophenol	mg/kg	24.1	U		
Pyridine	mg/kg	198	U		
2,4,5-Trichlorophenol	mg/kg	21.7	U		
2,4,6-Trichlorophenol	mg/kg	21.1	U		

## TCLP Metals in Soil



Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
Arsenic	mg/L		5.0 K	5.0 K	
Barium	mg/L		100 K	100 K	
Cadmium	mg/L		1.0 K	1.0 K	
Chromium	mg/L		5.0 K	5.0 K	
Lead	mg/L		5.0 K	5.0 K	
Selenium	mg/L		1.0 K	1.0 K	
Silver	mg/L		5.0 K	5.0 K	
TCLP Semi-Volatiles in Soil					
1,4-Dichlorobenzene	mg/L		0.00064 U	0.00064 U	
2,4-Dinitrotoluene	mg/L		0.00073 U	0.00073 U	
Hexachlorobenzene	mg/L		0.0005 U	0.0005 U	
Hexachlorobutadiene	mg/L		0.00059 U	0.00059 U	
Hexachloroethane	mg/L		0.00071 U	0.00071 U	
2-Methylphenol	mg/L		0.0014 U	0.0014 U	
4-Methylphenol	mg/L		0.0013 U	0.0013 U	
Nitrobenzene	mg/L		0.00075 U	0.00075 U	
Pentachlorophenol	mg/L		0.0012 U	0.0012 U	
Pyridine	mg/L		0.0021 U	0.0021 U	
2,4,5-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
2,4,6-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
Total Metals Analysis of TCLP Metals in Soil by ICAP					
Arsenic	mg/kg		2.6 U	2.6 U	5.2
Barium	mg/kg		15	15.2	124
Cadmium	mg/kg		0.52 U	0.52 U	0.67 U
Chromium	mg/kg		5.5 U	4.2 U	11.4
Lead	mg/kg		3.1	6.1	27.6
Selenium	mg/kg		5.2 U	5.2 U	6.7 U
Silver	mg/kg		0.52 U	0.52 U	0.67 U
Total Semivolatiles of TCLP compounds in Solids					
1,4-Dichlorobenzene	ug/kg		200 U	200 U	26 U
2,4-Dinitrotoluene	ug/kg		160 U	160 U	20 U
Hexachlorobenzene	ug/kg		230 U	230 U	30 U
Hexachlorobutadiene	ug/kg		190 U	190 U	24 U
Hexachloroethane	ug/kg		260 U	280 U	33 U
2-Methylphenol	ug/kg		740 U	740 U	96 U
4-Methylphenol	ug/kg		610 U	610 U	78 U
Nitrobenzene	ug/kg		220 U	220 U	29 U
Pentachlorophenol	ug/kg		410 U	410 U	54 U
Pyridine	ug/kg		3400 U	3400 U	440 U
2,4,5-Trichlorophenol	ug/kg		370 U	370 U	48 U
2,4,6-Trichlorophenol	ug/kg		360 U	360 U	47 U

Analysis / Analyte	Units	205-__	208-__
<b>Metals in Water by ICP</b>			
Aluminum	ug/L	10900	100 U
Antimony	ug/L	20 U	20 U
Arsenic	ug/L	25 U	25 U
Barium	ug/L	86.3	30
Beryllium	ug/L	1 U	1 U
Cadmium	ug/L	5 U	5 U
Calcium	mg/L	12.7	48.6
Chromium	ug/L	13.6	5.2
Cobalt	ug/L	5 U	5 U
Copper	ug/L	10 U	10 U
Iron	ug/L	8980	50 U
Lead	ug/L	25 U	25 U
Magnesium	mg/L	6.4	26.7
Manganese	ug/L	130	5 U
Molybdenum	ug/L	10 U	10 U
Nickel	ug/L	15 U	15 U
Potassium	mg/L	3.6	2 U
Selenium	ug/L	50 U	50 U
Silver	ug/L	5 U	5 U
Sodium	mg/L	5.4	3.2
Thallium	ug/L	30 U	30 U
Titanium	ug/L	139	5 U
Vanadium	ug/L	23.8	5 U
Zinc	ug/L	22.9	72
<b>pH of Water</b>			
pH	SU	7.2	7.5
<b>Semi-Volatile Organic Compounds in Water</b>			
Acenaphthene	ug/L	0.16 U	0.16 U
Acenaphthylene	ug/L	0.2 U	0.2 U
Anthracene	ug/L	0.14 U	0.14 U
Benzo(a)anthracene	ug/L	0.099 U	0.099 U
Benzo(a)pyrene	ug/L	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/L	0.13 U	0.13 U
Benzo(g,h,i)perylene	ug/L	0.11 U	0.11 U
Benzo(k)fluoranthene	ug/L	0.12 U	0.12 U
Benzoic acid	ug/L	1.3 U	1.3 U
Benzyl alcohol	ug/L	0.96 U	0.96 U
bis(2-Chloroethoxy)methane	ug/L	0.32 U	0.32 U
bis(2-Chloroethyl)ether	ug/L	0.4 U	0.4 U
bis(2-Chloroisopropyl)ether	ug/L	0.33 U	0.33 U
bis(2-Ethylhexyl)phthalate	ug/L	0.83 U	0.83 U
4-Bromophenyl-phenylether	ug/L	0.35 U	0.35 U
Butylbenzylphthalate	ug/L	0.94 U	0.94 U
Carbazole	ug/L	2 U	2 U
4-Chloro-3-methylphenol	ug/L	1.2 U	1.2 U
4-Chloroaniline	ug/L	1.2 U	1.2 U
2-Chloronaphthalene	ug/L	0.69 U	0.69 U
2-Chlorophenol	ug/L	1.3 U	1.3 U

Analysis / Analyte	Units	205-__	208-__
4-Chlorophenyl-phenylether	ug/L	0.28 U	0.28 U
Chrysene	ug/L	0.11 U	0.11 U
Di-n-butylphthalate	ug/L	0.31 U	0.31 U
Di-n-octylphthalate	ug/L	0.31 U	0.31 U
Dibenz(a,h)anthracene	ug/L	0.13 U	0.13 U
Dibenzofuran	ug/L	0.6 U	0.6 U
1,2-Dichlorobenzene	ug/L	0.86 U	0.86 U
1,3-Dichlorobenzene	ug/L	0.54 U	0.54 U
1,4-Dichlorobenzene	ug/L	0.64 U	0.64 U
3,3'-Dichlorobenzidine	ug/L	1.4 U	1.4 U
2,4-Dichlorophenol	ug/L	1.2 U	1.2 U
Diethylphthalate	ug/L	0.3 U	0.3 U
2,4-Dimethylphenol	ug/L	1.5 U	1.5 U
Dimethylphthalate	ug/L	0.23 U	0.23 U
4,6-Dinitro-2-methylphenol	ug/L	2 U	2 U
2,4-Dinitrophenol	ug/L	2.4 U	2.4 U
2,4-Dinitrotoluene	ug/L	0.73 U	0.73 U
2,6-Dinitrotoluene	ug/L	0.89 U	0.89 U
Fluoranthene	ug/L	1.3 U	0.12 U
Fluorene	ug/L	0.17 U	0.17 U
Hexachlorobenzene	ug/L	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.59 U	0.59 U
Hexachlorocyclopentadiene	ug/L	0.6 U	0.6 U
Hexachloroethane	ug/L	0.71 U	0.71 U
Indeno(1,2,3-cd)pyrene	ug/L	0.15 U	0.15 U
Isophorone	ug/L	0.81 U	0.81 U
2-Methylnaphthalene	ug/L	0.72 U	0.72 U
2-Methylphenol	ug/L	1.4 U	1.4 U
4-Methylphenol	ug/L	1.3 U	1.3 U
Naphthalene	ug/L	0.18 U	0.18 U
2-Nitroaniline	ug/L	0.78 U	0.78 U
3-Nitroaniline	ug/L	0.53 U	0.53 U
4-Nitroaniline	ug/L	0.86 U	0.86 U
Nitrobenzene	ug/L	0.75 U	0.75 U
2-Nitrophenol	ug/L	1.3 U	1.3 U
4-Nitrophenol	ug/L	1.4 U	1.4 U
N-nitroso-di-n-propylamine	ug/L	0.41 U	0.41 U
N-nitrosodiphenylamine	ug/L	0.33 U	0.33 U
Pentachlorophenol	ug/L	1.2 U	1.2 U
Phenanthrene	ug/L	0.11 U	0.11 U
Phenol	ug/L	1.1 U	1.1 U
Pyrene	ug/L	0.092 U	0.092 U
1,2,4-Trichlorobenzene	ug/L	0.7 U	0.7 U
2,4,5-Trichlorophenol	ug/L	1.7 U	1.7 U
2,4,6-Trichlorophenol	ug/L	1.7 U	1.7 U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL SERVICES DIVISION

REGION 7

25 FUNSTON ROAD

KANSAS CITY, KANSAS 66115

Date: MAY 24 2001

MEMORANDUM

SUBJECT: Data Transmittal for ASR #:

827

Site Description: Missouri Tie and Timber

FROM:

Dale Bates, Program Manager

Regional Laboratory, Environmental Services Division

TO:

Deedric Newsome

ENSU/ARCH

Attached is the data transmittal for the above referenced site. This is a Modified Data Transmittal; these data are modified and differ from data previously transmitted. If you have any questions or comments, please contact Dee Simmons at 551-5129.

Attachment

cc: Primary Data File

MODIFIED DATA: Data were modified for the following reason(s):

At The Project Leaders Request,  
additional BNA parameters  
are being reported in LIMs.

United States Environmental Protection Agency

Region 7 Laboratory  
25 Funston Road  
Kansas City, KS 66115

Date: 5/24/2001

Subject: Transmittal of Sample Analysis Results for ASR #: 827

Activity Number: DLN14

Activity Description: Missouri Tie and Timber

From: Michael Thomas, Associate Laboratory Director   
Regional Laboratory, Environmental Services Division

To: Dedriel Newsome  
ENSV/ARCM

This is the sample analysis results transmittal for the above-referenced Analytical Services Request (ASR). The data contained in this transmittal have been approved by the Regional Laboratory. This transmittal contains all of the sample analysis results for this ASR. The Regional Laboratory should be notified within 14 days if any changes are needed to the contents of this report. If you have any questions, comments or data changes, please contact the Laboratory Customer Service Department at 913-551-5295.

cc: Analytical Data File

ASR Number: 827

Summary of Activity Information

4/6/2001

Activity Leader: Newsome, Dedriel

Org: ENSV/ARCM

Phone: (913) 551-7049

Activity Number: DLN14

Activity Desc: Missouri Tie and Timber

Location: Bunker

State: Missouri

Type: RCRA

Purpose: Enforcement

Explanation of Codes, Units and Qualifiers used on this report.

Sample QC Codes: QC Codes identify the type of sample for quality control

— = Field Sample  
FD = Field Duplicate

Units: Specific units in which results are reported.

Deg C = Degrees Celsius  
mg/kg = Milligrams per Kilogram  
mg/L = Milligrams per Liter  
SU = Standard Units (pH)  
ug/kg = Micrograms per Kilogram  
ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

K = Actual value of the sample is less than the value reported.

L = Actual value of the sample is greater than the value reported.

U = Not detected at or above the reportable level shown.

Activity Number: DLN14

ASR Number: 827

## Sample Information Summary

Activity Desc: Missouri Tie and Timber

4/6/2001

Sample Numbe	QC Code	Matrix	Location	External Sample No.	Start Date	Start Time	End Date	End Time	Receipt Date
100	__	Hazardous	Drip pad waste from drip pad collection system taken near South wall near RR tracks on West side		03/07/2001	13:45	03/07/2001	13:46	03/08/2001
101	__	Soil	T-Building wood storage area sample taken in drop areas		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
101	-FD	Soil	T-Building wood storage area/Duplicate of sample 101		03/07/2001	14:00	03/07/2001	14:05	03/08/2001
102	__	Soil	Background soil sample taken approx. 100 yds. South of office bldg.		03/07/2001	14:20	03/07/2001	14:25	03/08/2001
205	__	Water	Collection Pond water sample		03/07/2001	16:05	03/07/2001	16:18	03/08/2001
208	__	Water	Drinking water from on-site well near boiler		03/07/2001	15:50	03/07/2001	15:57	03/08/2001

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Analysis	Comments About Results For This Analysis
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**Semi-Volatile Organic Compounds in Hazardous Waste**

The compounds previously reported in the original transmittal under the "Total Semi-Volatiles of TCLP Compounds in Hazardous" are not reported again in this data set. See the original transmittal for these compounds and associated results.

As requested by the EPA Project Leader, the laboratory was requested to analyze the above samples for the complete list of routine BNA compounds after they had previously been analyzed, and data reported, for the totals of TCLP semivolatiles and TCLP semivolatiles. The laboratory proceeded with the analysis as requested. Although no data were qualified based on holding times, it is possible that the actual concentrations may have been higher than the reported results.

**Semi-Volatile Organic Compounds in Soil**

Sample 827-102 was not re-extracted with the other samples due to the fact that none of the target compounds exceeded the linearity in the initial analysis. The initial analysis of this sample (and all others) was analyzed in conjunction with a valid calibration for all target compounds. Therefore, the submitted data for this sample contained all target BNA compounds as requested. Also, the compounds previously reported in the original transmittal under the "Total Semi-Volatiles of TCLP Compounds in Solids" are not reported again in this data set. See the original transmittal for these compounds and associated results.

As requested by the EPA Project Leader, the laboratory was requested to analyze the above samples for the complete list of routine BNA compounds after they had previously been analyzed, and data reported, for the totals of TCLP semivolatiles and TCLP semivolatiles. The laboratory proceeded with the analysis as requested. Although no data were qualified based on holding times, it is possible that the actual concentrations may have been higher than the reported results.

Due to matrix interferences and very high native concentrations, MS/MSD recoveries of the phenolic compounds ranged from 0% - 7%. Based on the nature of the samples and the observed MS/MSD results, it is possible that the reported results for the phenolic compounds may be biased low.

**TCLP Semi-Volatiles in Hazardous**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**TCLP Semi-Volatiles in Soil**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Metals Analysis of TCLP Metals in Soil by ICAP**

Slight chromium contamination was found in the laboratory method blank. Only samples containing this compound at a level greater than five times the contamination level of the blank are reported without being qualified. All samples that contained this compound but at a level less than five times the contamination in the blank have the result "U-coded" indicating the method reporting limit has been raised to the level found in the sample. Samples affected were 827-101 and 827-101FD.

**Total Semivolatiles of TCLP compounds in Hazardous Waste**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.

**Total Semivolatiles of TCLP compounds in Solids**

The laboratory reported 3-methylphenol and 4-methylphenol as an isomer pair. As a result, 3-methylphenol is not reported individually.



Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
Flashpoint of Hazardous Samples					
Flashpoint	Deg C	79	L		
pH of Hazardous Sample					
pH	SU	6.7			
Semi-Volatile Organic Compounds in Hazardous Waste					
Acenaphthene	mg/kg	10670			
Acenaphthylene	mg/kg	64.6			
Anthracene	mg/kg	14710			
Benzo(a)anthracene	mg/kg	3130			
Benzo(a)pyrene	mg/kg	957			
Benzo(b)fluoranthene	mg/kg	1070			
Benzo(g,h,i)perylene	mg/kg	233			
Benzo(k)fluoranthene	mg/kg	983			
Benzoic acid	mg/kg	149	U		
Benzyl alcohol	mg/kg	49.8	U		
bis(2-Chloroethoxy)methane	mg/kg	16.8	U		
bis(2-Chloroethyl)ether	mg/kg	14.9	U		
bis(2-Chloroisopropyl)ether	mg/kg	21.8	U		
bis(2-Ethylhexyl)phthalate	mg/kg	18.8	U		
4-Bromophenyl-phenylether	mg/kg	13.2	U		
Butylbenzylphthalate	mg/kg	14.1	U		
Carbazole	mg/kg	11650			
4-Chloro-3-methylphenol	mg/kg	35.3	U		
4-Chloroaniline	mg/kg	53	U		
2-Chloronaphthalene	mg/kg	25.4	U		
2-Chlorophenol	mg/kg	63.3	U		
4-Chlorophenyl-phenylether	mg/kg	15.3	U		
Chrysene	mg/kg	3770			
Di-n-butylphthalate	mg/kg	17.6	U		
Di-n-octylphthalate	mg/kg	15.9	U		
Dibenz(a,h)anthracene	mg/kg	8.1	U		
Dibenzofuran	mg/kg	8300			
1,2-Dichlorobenzene	mg/kg	33.8	U		
1,3-Dichlorobenzene	mg/kg	36.5	U		
3,3'-Dichlorobenzidine	mg/kg	186	U		
2,4-Dichlorophenol	mg/kg	55.5	U		
Diethylphthalate	mg/kg	11.6	U		
2,4-Dimethylphenol	mg/kg	296	U		
Dimethylphthalate	mg/kg	6.6	U		
4,6-Dinitro-2-methylphenol	mg/kg	63.9	U		
2,4-Dinitrophenol	mg/kg	112	U		
2,6-Dinitrotoluene	mg/kg	33.9	U		
Fluoranthene	mg/kg	22330			
Fluorene	mg/kg	14240			
Hexachlorocyclopentadiene	mg/kg	28.5	U		
Indeno(1,2,3-cd)pyrene	mg/kg	264			
Isophorone	mg/kg	27.6	U		
2-Methylnaphthalene	mg/kg	2080			
Naphthalene	mg/kg	4170			

Analysis / Analyte	Units	100-	101-	101-FD	102-
2-Nitroaniline	mg/kg	29.9 U			
3-Nitroaniline	mg/kg	71.9 U			
4-Nitroaniline	mg/kg	68.3 U			
2-Nitrophenol	mg/kg	50.4 U			
4-Nitrophenol	mg/kg	61.1 U			
N-nitroso-di-n-propylamine	mg/kg	24.8 U			
N-nitrosodiphenylamine	mg/kg	13.1 U			
Phenanthrene	mg/kg	53280			
Phenol	mg/kg	57.6 U			
Pyrene	mg/kg	15690			
1,2,4-Trichlorobenzene	mg/kg	24.5 U			
TCLP Metals in Haz. Waste					
Arsenic	mg/L	0.025 U			
Barium	mg/L	0.08			
Cadmium	mg/L	0.005 U			
Chromium	mg/L	0.005 U			
Lead	mg/L	0.025 U			
Selenium	mg/L	0.05 U			
Silver	mg/L	0.005 U			
TCLP Semi-Volatiles in Hazardous					
1,4-Dichlorobenzene	mg/L	0.00084 U			
2,4-Dinitrotoluene	mg/L	0.00073 U			
Hexachlorobenzene	mg/L	0.0005 U			
Hexachlorobutadiene	mg/L	0.00059 U			
Hexachloroethane	mg/L	0.00071 U			
2-Methylphenol	mg/L	0.014 U			
4-Methylphenol	mg/L	0.18			
Nitrobenzene	mg/L	0.00075 U			
Pentachlorophenol	mg/L	0.0012 U			
Pyridine	mg/L	0.0021 U			
2,4,5-Trichlorophenol	mg/L	0.0017 U			
2,4,6-Trichlorophenol	mg/L	0.0017 U			
Total Metals of TCLP in Hazardous Samples by ICAP					
Arsenic	mg/kg	125 U			
Barium	mg/kg	50 U			
Cadmium	mg/kg	25 U			
Chromium	mg/kg	25 U			
Lead	mg/kg	125 U			
Selenium	mg/kg	250 U			
Silver	mg/kg	25 U			
Total Semivolatiles of TCLP compounds in Hazardous Waste					
Pyridine	mg/kg	198 U			
Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg		117000	86500	7.2 U
Acenaphthylene	ug/kg		3020 U	3020 U	5.2 U
Anthracene	ug/kg		127000	99200	4.9 U
Benzo(a)anthracene	ug/kg		50200	38400	3.7 U
Benzo(a)pyrene	ug/kg		2940 U	2940 U	5.1 U

Activity Desc: Missouri Tie and Timber

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
Benzo(b)fluoranthene	ug/kg		4720 U	4720 U	8.1 U
Benzo(g,h,i)perylene	ug/kg		3870 U	3870 U	6.7 U
Benzo(k)fluoranthene	ug/kg		3940 U	3940 U	6.8 U
Benzoic acid	ug/kg		76500 U	76500 U	132 U
Benzyl alcohol	ug/kg		25700 U	25700 U	44.3 U
bis(2-Chloroethoxy)methane	ug/kg		8660 U	8660 U	14.9 U
bis(2-Chloroethyl)ether	ug/kg		7650 U	7650 U	13.2 U
bis(2-Chloroisopropyl)ether	ug/kg		11200 U	11200 U	19.3 U
bis(2-Ethylhexyl)phthalate	ug/kg		9660 U	9660 U	16.7 U
4-Bromophenyl-phenylether	ug/kg		6800 U	6800 U	11.7 U
Butylbenzylphthalate	ug/kg		7270 U	7270 U	12.5 U
Carbazole	ug/kg		86400	60700	78.7 U
4-Chloro-3-methylphenol	ug/kg		18200 U	18200 U	31.3 U
4-Chloroaniline	ug/kg		27300 U	27300 U	47.1 U
2-Chloronaphthalene	ug/kg		13100 U	13100 U	22.5 U
2-Chlorophenol	ug/kg		32600 U	32600 U	56.3 U
4-Chlorophenyl-phenylether	ug/kg		7890 U	7890 U	13.6 U
Chrysene	ug/kg		70500	62200	4.3 U
Di-n-butylphthalate	ug/kg		9050 U	9050 U	15.6 U
Di-n-octylphthalate	ug/kg		8200 U	8200 U	14.1 U
Dibenz(a,h)anthracene	ug/kg		4180 U	4180 U	7.2 U
Dibenzofuran	ug/kg		64300	37100	22.4 U
1,2-Dichlorobenzene	ug/kg		17400 U	17400 U	30 U
1,3-Dichlorobenzene	ug/kg		18800 U	18800 U	32.4 U
3,3'-Dichlorobenzidine	ug/kg		95900 U	95900 U	165 U
2,4-Dichlorophenol	ug/kg		28600 U	28600 U	49.3 U
Diethylphthalate	ug/kg		5950 U	5950 U	10.3 U
2,4-Dimethylphenol	ug/kg		152000 U	152000 U	263 U
Dimethylphthalate	ug/kg		3400 U	3400 U	5.9 U
4,6-Dinitro-2-methylphenol	ug/kg		32900 U	32900 U	56.8 U
2,4-Dinitrophenol	ug/kg		57700 U	57700 U	99.5 U
2,6-Dinitrotoluene	ug/kg		17500 U	17500 U	30.1 U
Fluoranthene	ug/kg		363000	297000	106
Fluorene	ug/kg		159000	120000	6.5 U
Hexachlorocyclopentadiene	ug/kg		14700 U	14700 U	25.3 U
Indeno(1,2,3-cd)pyrene	ug/kg		2550 U	2550 U	4.4 U
Isophorone	ug/kg		14200 U	14200 U	24.5 U
2-Methylnaphthalene	ug/kg		13400 U	13400 U	23.1 U
Naphthalene	ug/kg		3250 U	3250 U	5.6 U
2-Nitroaniline	ug/kg		15400 U	15400 U	26.5 U
3-Nitroaniline	ug/kg		37000 U	37000 U	63.9 U
4-Nitroaniline	ug/kg		34200 U	34200 U	58.9 U
2-Nitrophenol	ug/kg		26000 U	26000 U	44.8 U
4-Nitrophenol	ug/kg		31500 U	31500 U	54.3 U
N-nitroso-di-n-propylamine	ug/kg		12800 U	12800 U	22 U
N-nitrosodiphenylamine	ug/kg		6730 U	6730 U	11.6 U
Phenanthrene	ug/kg		648000	486000	195
Phenol	ug/kg		29700 U	29700 U	51.2 U
Pyrene	ug/kg		277000	233000	75
1,2,4-Trichlorobenzene	ug/kg		12600 U	12600 U	21.7 U

Analysis / Analyte	Units	100-__	101-__	101-FD	102-__
<b>TCLP Metals in Soil</b>					
Arsenic	mg/L		5.0 K	5.0 K	
Barium	mg/L		100 K	100 K	
Cadmium	mg/L		1.0 K	1.0 K	
Chromium	mg/L		5.0 K	5.0 K	
Lead	mg/L		5.0 K	5.0 K	
Selenium	mg/L		1.0 K	1.0 K	
Silver	mg/L		5.0 K	5.0 K	
<b>TCLP Semi-Volatiles in Soil</b>					
1,4-Dichlorobenzene	mg/L		0.00064 U	0.00064 U	
2,4-Dinitrotoluene	mg/L		0.00073 U	0.00073 U	
Hexachlorobenzene	mg/L		0.0005 U	0.0005 U	
Hexachlorobutadiene	mg/L		0.00059 U	0.00059 U	
Hexachloroethane	mg/L		0.00071 U	0.00071 U	
2-Methylphenol	mg/L		0.0014 U	0.0014 U	
4-Methylphenol	mg/L		0.0013 U	0.0013 U	
Nitrobenzene	mg/L		0.00075 U	0.00075 U	
Pentachlorophenol	mg/L		0.0012 U	0.0012 U	
Pyridine	mg/L		0.0021 U	0.0021 U	
2,4,5-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
2,4,6-Trichlorophenol	mg/L		0.0017 U	0.0017 U	
<b>Total Metals Analysis of TCLP Metals in Soil by ICAP</b>					
Arsenic	mg/kg		2.6 U	2.6 U	5.2
Barium	mg/kg		15	15.2	124
Cadmium	mg/kg		0.52 U	0.52 U	0.67 U
Chromium	mg/kg		5.5 U	4.2 U	11.4
Lead	mg/kg		3.1	6.1	27.6
Selenium	mg/kg		5.2 U	5.2 U	6.7 U
Silver	mg/kg		0.52 U	0.52 U	0.67 U
<b>Total Semivolatiles of TCLP compounds in Solids</b>					
1,4-Dichlorobenzene	ug/kg		200 U	200 U	26 U
2,4-Dinitrotoluene	ug/kg		160 U	160 U	20 U
Hexachlorobenzene	ug/kg		230 U	230 U	30 U
Hexachlorobutadiene	ug/kg		190 U	190 U	24 U
Hexachloroethane	ug/kg		260 U	260 U	33 U
2-Methylphenol	ug/kg		740 U	740 U	96 U
4-Methylphenol	ug/kg		610 U	610 U	78 U
Nitrobenzene	ug/kg		220 U	220 U	29 U
Pentachlorophenol	ug/kg		410 U	410 U	54 U
Pyridine	ug/kg		3400 U	3400 U	440 U
2,4,5-Trichlorophenol	ug/kg		370 U	370 U	48 U
2,4,6-Trichlorophenol	ug/kg		360 U	360 U	47 U

Analysis / Analyte	Units	205-__	208-__
<b>Metals in Water by ICP</b>			
Aluminum	ug/L	10900	100 U
Antimony	ug/L	20 U	20 U
Arsenic	ug/L	25 U	25 U
Barium	ug/L	86.3	30
Beryllium	ug/L	1 U	1 U
Cadmium	ug/L	5 U	5 U
Calcium	mg/L	12.7	48.6
Chromium	ug/L	13.6	5.2
Cobalt	ug/L	5 U	5 U
Copper	ug/L	10 U	10 U
Iron	ug/L	8980	50 U
Lead	ug/L	25 U	25 U
Magnesium	mg/L	6.4	26.7
Manganese	ug/L	130	5 U
Molybdenum	ug/L	10 U	10 U
Nickel	ug/L	15 U	15 U
Potassium	mg/L	3.6	2 U
Selenium	ug/L	50 U	50 U
Silver	ug/L	5 U	5 U
Sodium	mg/L	5.4	3.2
Thallium	ug/L	30 U	30 U
Titanium	ug/L	139	5 U
Vanadium	ug/L	23.8	5 U
Zinc	ug/L	22.9	72
<b>pH of Water</b>			
pH	SU	7.2	7.5
<b>Semi-Volatile Organic Compounds in Water</b>			
Acenaphthene	ug/L	0.16 U	0.16 U
Acenaphthylene	ug/L	0.2 U	0.2 U
Anthracene	ug/L	0.14 U	0.14 U
Benzo(a)anthracene	ug/L	0.099 U	0.099 U
Benzo(a)pyrene	ug/L	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/L	0.13 U	0.13 U
Benzo(g,h,i)perylene	ug/L	0.11 U	0.11 U
Benzo(k)fluoranthene	ug/L	0.12 U	0.12 U
Benzoic acid	ug/L	1.3 U	1.3 U
Benzyl alcohol	ug/L	0.96 U	0.96 U
bis(2-Chloroethoxy)methane	ug/L	0.32 U	0.32 U
bis(2-Chloroethyl)ether	ug/L	0.4 U	0.4 U
bis(2-Chloroisopropyl)ether	ug/L	0.33 U	0.33 U
bis(2-Ethylhexyl)phthalate	ug/L	0.83 U	0.83 U
4-Bromophenyl-phenylether	ug/L	0.35 U	0.35 U
Butylbenzylphthalate	ug/L	0.94 U	0.94 U
Carbazole	ug/L	2 U	2 U
4-Chloro-3-methylphenol	ug/L	1.2 U	1.2 U
4-Chloroaniline	ug/L	1.2 U	1.2 U
2-Chloronaphthalene	ug/L	0.69 U	0.69 U
2-Chlorophenol	ug/L	1.3 U	1.3 U

Analysis / Analyte	Units	205-	208-
4-Chlorophenyl-phenylether	ug/L	0.28 U	0.28 U
Chrysene	ug/L	0.11 U	0.11 U
Di-n-butylphthalate	ug/L	0.31 U	0.31 U
Di-n-octylphthalate	ug/L	0.31 U	0.31 U
Dibenz(a,h)anthracene	ug/L	0.13 U	0.13 U
Dibenzofuran	ug/L	0.6 U	0.6 U
1,2-Dichlorobenzene	ug/L	0.86 U	0.86 U
1,3-Dichlorobenzene	ug/L	0.54 U	0.54 U
1,4-Dichlorobenzene	ug/L	0.64 U	0.64 U
3,3'-Dichlorobenzidine	ug/L	1.4 U	1.4 U
2,4-Dichlorophenol	ug/L	1.2 U	1.2 U
Diethylphthalate	ug/L	0.3 U	0.3 U
2,4-Dimethylphenol	ug/L	1.5 U	1.5 U
Dimethylphthalate	ug/L	0.23 U	0.23 U
4,6-Dinitro-2-methylphenol	ug/L	2 U	2 U
2,4-Dinitrophenol	ug/L	2.4 U	2.4 U
2,4-Dinitrotoluene	ug/L	0.73 U	0.73 U
2,6-Dinitrotoluene	ug/L	0.89 U	0.89 U
Fluoranthene 4120	ug/L	1.3	0.12 U
Fluorene	ug/L	0.17 U	0.17 U
Hexachlorobenzene	ug/L	0.5 U	0.5 U
Hexachlorobutadiene	ug/L	0.59 U	0.59 U
Hexachlorocyclopentadiene	ug/L	0.6 U	0.6 U
Hexachloroethane	ug/L	0.71 U	0.71 U
Indeno(1,2,3-cd)pyrene	ug/L	0.15 U	0.15 U
Isophorone	ug/L	0.81 U	0.81 U
2-Methylnaphthalene	ug/L	0.72 U	0.72 U
2-Methylphenol	ug/L	1.4 U	1.4 U
4-Methylphenol	ug/L	1.3 U	1.3 U
Naphthalene	ug/L	0.18 U	0.18 U
2-Nitroaniline	ug/L	0.78 U	0.78 U
3-Nitroaniline	ug/L	0.53 U	0.53 U
4-Nitroaniline	ug/L	0.86 U	0.86 U
Nitrobenzene	ug/L	0.75 U	0.75 U
2-Nitrophenol	ug/L	1.3 U	1.3 U
4-Nitrophenol	ug/L	1.4 U	1.4 U
N-nitroso-di-n-propylamine	ug/L	0.41 U	0.41 U
N-nitrosodiphenylamine	ug/L	0.33 U	0.33 U
Pentachlorophenol	ug/L	1.2 U	1.2 U
Phenanthrene	ug/L	0.11 U	0.11 U
Phenol	ug/L	1.1 U	1.1 U
Pyrene	ug/L	0.092 U	0.092 U
1,2,4-Trichlorobenzene	ug/L	0.7 U	0.7 U
2,4,5-Trichlorophenol	ug/L	1.7 U	1.7 U
2,4,6-Trichlorophenol	ug/L	1.7 U	1.7 U

# QC CALCULATIONS

SAMPLE #	101 (ppm)	101FD (ppm)	REL STD DEV %
LEAD	3.1	6.1	46.12
LEAD TCLP			
BARIUM	15	15.2	0.94
BARIUM TCLP			
BENZO(A)ANTHRACENE	50.2	38.4	18.83
CHRYSENE	70.5	62.2	8.85
FLUORANTHENE	363	297	14.14

**MISSOURI TIE AND TIMBER PHOTOS**

**Reynolds, MO**

**March 7, 2001**

Photos Taken by D. Newsome unless otherwise noted

*D. Newsome*



# PHOTO LOG

Missouri Tie  
Reynolds, MO

3/7/01

W. Newsome



mgi.bmp



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MVC-002X.JPG



MVC-003X.JPG



MVC-004X.JPG



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**Photo 1** -West side of Treatment Building (facing east) - Two treatment cylinders with the rail raised over the containment sump.

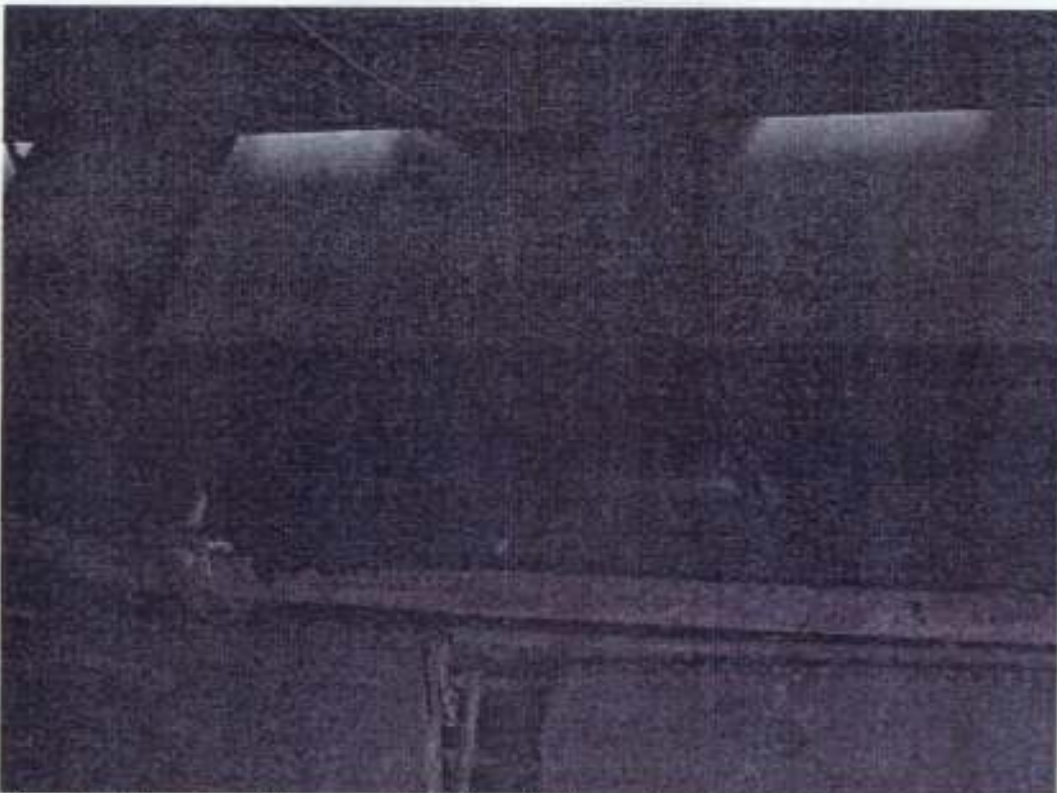


**Photo 2** -West side of Treatment Building (facing east) - Two treatment cylinders with the rail raised over the containment sump. Close-up of the containment sump.

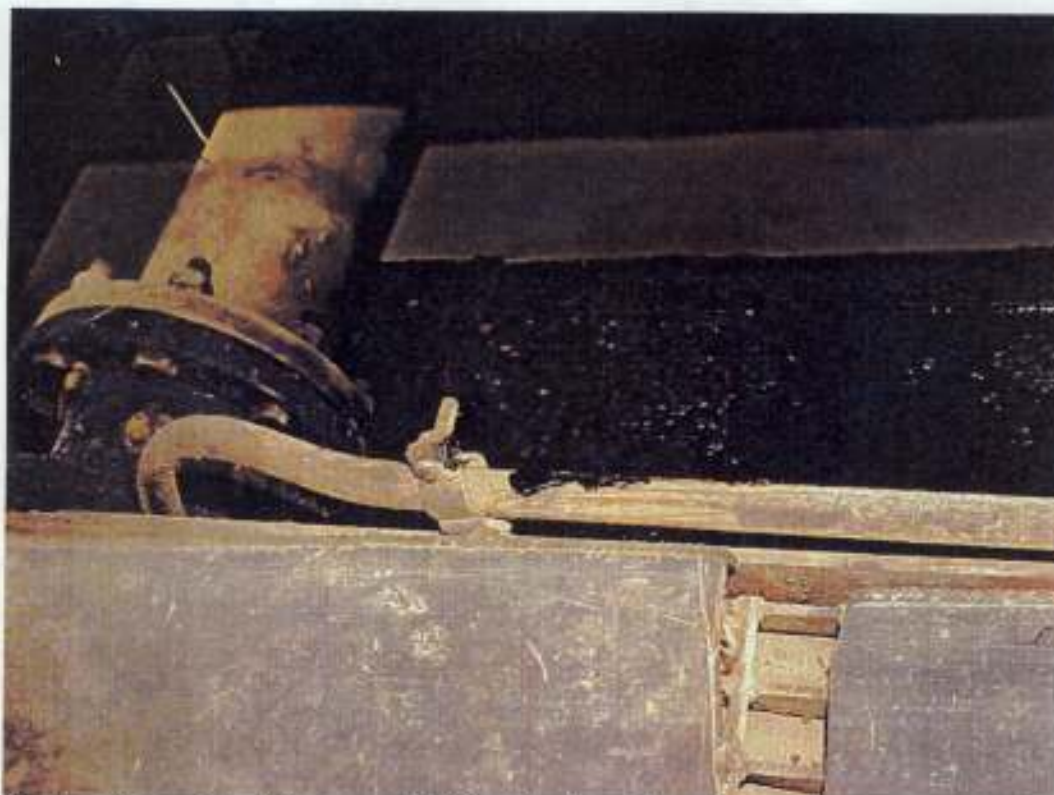




**Photo 3** - West side of Treatment Building (facing southeast) - Two treatment cylinders with the rail raised over the containment sump. Close-up of the drip pad's collection vat in the containment sump.



**Photo 4** - West side of Treatment Building (facing southeast) - Two treatment cylinders with the rail raised over the containment sump. Close-up of the drip pad's collection vat in the containment sump.



**Photo 5** -West side of Treatment Building (facing southeast) - Two treatment cylinders with the rail raised over the containment sump. Close-up of the drip pad's collection vat in the containment sump.



**Photo 6** -West side of Treatment Building (facing southeast) - Two treatment cylinders with the rail raised over the containment sump. Close-up of the drip pad's collection vat under the treatment cylinder door in the containment sump





**Photo 7** - South side of east T-Building (facing north) - Creosote drippage between the two rows of treated wood being stored on the T-Building's concrete pad.



**Photo 8** - West side of east T-Building (facing east) - Creosote drippage between bundles of treated wood being stored on the T-Building's concrete pad.



**Photo 9** - West side of south T-Building - Creosote drippage between bundles of treated wood being stored on the T-Building's concrete pad.



**Photo 10** - Close-up of photo 9 along edge of T-Building





**Photo 11** -West side of Treatment Building (facing west) -Treated wood sitting on the west drip pad along with two bundles of untreated wood.



**Photo 12** -West side of Treatment Building (facing north) - Close-up of the drip pad's collection vat in the containment sump under the south rail bridge. Sample #100





**Photo 13** -West side of Treatment Building (looking down into the containment sump near the south cylinder) - About 20 five gallon pails of various fullness being stored.

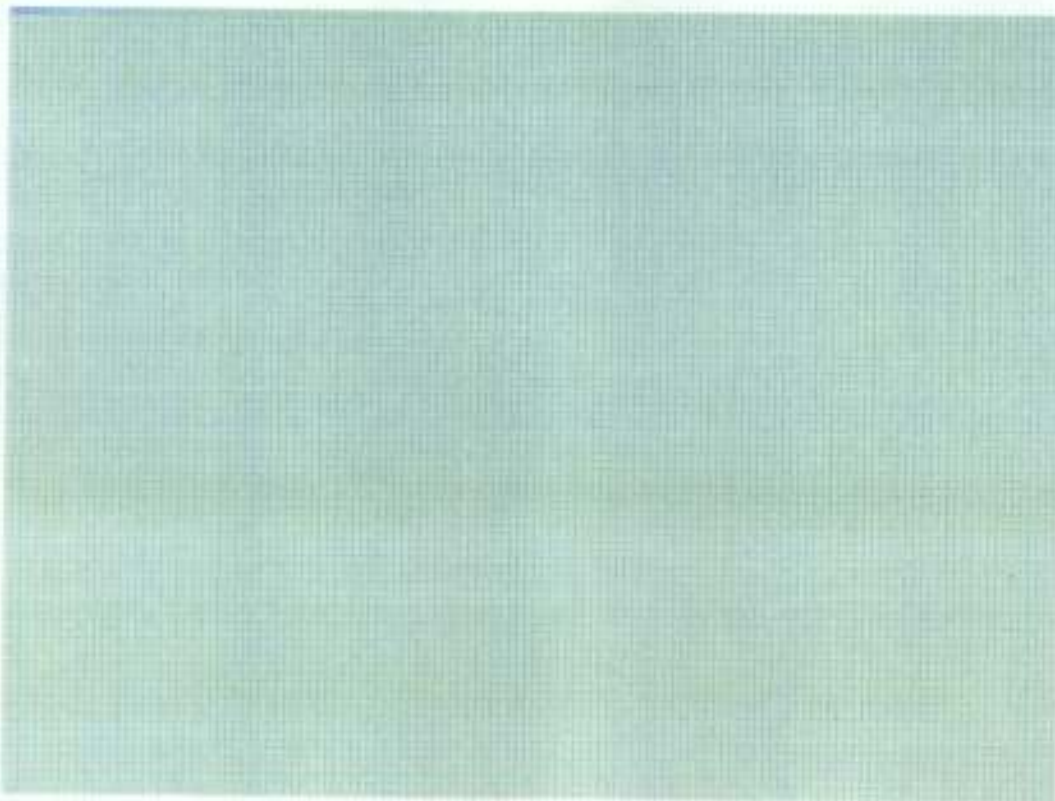


**Photo 14** -South side of the south T-Building (facing north) - Sample #101/101D





**Photo 15** -South side of the south T-Building (facing south) - About 1 ft diameter creosote drippage on ground.



**Photo 16** -South Storage Yard - Photo did not take





**Photo 17** -South Storage Yard (facing south) - Treated wood being stored on ground.



**Photo 18** -South Storage Yard (facing southeast) - Treated wood being stored on ground. Some drippage observed under bundles

Creosote  
Dripping



**Photo 19** --Southeast Storage Yard (facing south) - Treated wood being stored on ground. Some drippage observed under bundles



**Photo 20** -Southeast side of the south T-Building (facing west) - Sample #101/101D





Photo 23 - Old farm area north of the collection pond. Background sample #102

Water faucet  
purging

Area of well  
head; pump  
inside wall  
behind faucet



Photo 24 - North side of the Treatment Building - Sample #208



**Photo 25** -Collection pond (facing northwest) Sample #205  
Photo taken by Trevor Urban